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THE UNIT ASSIGNMENT IN ACTUAL PRACTICE

The *School Review*, in reporting from time to time the progress of the National Survey of Secondary Education, some months ago foreshadowed the project of the survey investigating provisions for individual differences, which is being directed by Roy O. Billett. The work on this project is now sufficiently advanced to permit drawing, at this early date, on certain of its major findings. Perhaps the most significant of the findings concerns those procedures in teaching characterized by the unit assignment—procedures which are often advocated as provisions for individual differences.

The investigations of the survey show that, of all the plans to provide for individual differences, the unit assignment is the most widely distributed and the most widely used. It is a prominent characteristic of at least eleven plans, methods, or techniques which have been allotted extended space in educational literature and which, considered collectively, are widely practiced. In the order of frequency of occurrence in secondary schools, these procedures are: the problem method, differentiated assignments, the laboratory plan, long-unit assignments, the contract plan, the project method, individual instruction, the Morrison plan, the Dalton plan, the modified

Dalton plan, and the Winnetka technique. The designations here applied to the procedures are those preferred by the respondents to the inquiry forms.

Because it was necessary that large numbers of schools be represented in this special phase of the study, Billett included in his analysis the following groups: schools reporting use of (1) long-unit assignments, (2) individualized instruction, (3) the contract plan, (4) the laboratory plan, (5) the problem method, (6) the project method, and (7) some combination of the first six items. For each of these he computed the percentages of schools reporting the use of each of seventy items of practice which he had derived from an analysis of the literature dealing with these different procedures. Because it is not practicable to reproduce here all these items, a few will be listed by way of illustration:

The steps followed in teaching according to the plan are: introduction, individual-work period, period of class discussion, and the testing period.

To the four steps just mentioned is added a fifth step, reteaching.

A written pretest, objective type, is given during the introductory period.

Assignments, units, and problems are furnished the pupil in multigraphed, mimeographed, or printed form.

During the individual-work period the classroom is made a study-room or laboratory.

During the period of class discussion the teacher attempts to present additional material of interest not thought of or discovered by the class.

The sole purpose of the testing period is to discover whether pupils have mastered the essentials of the assignment.

The striking fact about these percentages for each of the seventy items is that they are very similar for the different procedures represented. This similarity prompted Billett to draw the following conclusion and to make the further computations to which he refers.

Only a casual study of the data pertaining to these seventy items is needed to show that practices in these schools are essentially the same regardless of the name under which the work is proceeding. However, in support of the rather sweeping statement that the plans mentioned above in practice are essentially the same, the standard error of the difference of each pair of compared percentages was calculated, and from this error the critical ratio was derived. Since there are 70 items and 21 possible paired comparisons on each item, a total of 1,470 critical ratios were computed. Of these 1,470 ratios, just 43, or less than 3 per cent, were statistically real in the sense that they equaled or exceeded 3.

Twenty-seven more were between 2.5 and 2.9. If these are included, there are still less than 5 per cent of the differences which are statistically real. Even in the small number of cases where the differences are statistically real, the significance of the difference from a practical, common-sense standpoint is not apparent. Practices typical of one plan are typical of all. Practices tabooed in one plan are tabooed in all.

This quotation is made from a "second progress report" of the whole project published in the *Proceedings of the Sixteenth Annual Meeting of the Department of Secondary-School Principals*. The basic data and further implications from them will be made available in the autumn in one of the monographs of the National Survey to be published by the Office of Education. It is not too early, however, to conclude that this large-scale investigation made possible by the resources of the survey will bring much relief to school workers in the knowledge that, irrespective of what the originators of these procedures may contend as to differences represented, the procedures, as actually carried on in the schools, are practically identical. This conclusion is of surpassing moment in the realm of methods of teaching.

CORRESPONDENCE STUDY IN PUBLIC HIGH SCHOOLS

In these days when, because of shrinking budgets, teaching staffs of high schools are being reduced and offerings are being pruned, special interest may attach to the opportunities afforded in the device of correspondence study. These pages have previously carried reports on correspondence study in high schools, but only as it is being carried on in some single locality. One of the major projects of the National Survey of Secondary Education is concerned with special types of schools—a project directed by Grayson N. Kefauver of Teachers College, Columbia University—and included in this project is a special study of the status of correspondence study in high schools throughout the country. The work is being done by Victor H. Noll and Ellwood Drake, of the survey staff resident in Washington, and has progressed far enough to warrant publication of a summary of the information gathered on certain main aspects of the study.

The investigation aimed to ascertain, as far as possible, the extent of the provisions for correspondence study in high schools and the

practices followed. To this end letters of inquiry were sent to the state departments of education requesting the names of all schools which were known to be carrying on this work. Similar letters were directed to other agencies in a position to know of such schools. By this method a list of 183 schools was made up. To all these a form inquiring into practices was sent. A total of ninety-six replies was received, forty-six of these supplying the information requested and all but two of the remainder indicating that such provisions are not being made. These two schools, as well as four of the forty-six, reported that the correspondence-study plan is not this year being used. In view of the generous response made by school authorities to requests for information for the National Survey of Secondary Education, it may be assumed that few of the schools not returning the form have arrangements for the pupils to take courses by correspondence. Presumably, the forty-six schools include not far from all those in which such arrangements are in force.

The schools represented in these forty-six reports are located in sixteen states. Nebraska is credited with sixteen of these schools; Michigan, with six; Massachusetts, with five; Wisconsin, with four; Illinois, Kansas, and Pennsylvania, with two each; and Indiana, Iowa, Minnesota, Mississippi, Missouri, Montana, Washington, West Virginia, and Wyoming, with a single school each. Although not a large number of schools make arrangements for correspondence study, the practice is widely scattered over the country.

When one considers the question of why arrangements for correspondence study would be made in high schools, the answer will usually turn on the size of the schools. The offerings in small high schools are usually more restricted than those in larger schools, and therefore the need of extending the offerings in some way would more often emerge. This fact is reflected in the distribution by size of enrolment of the forty-four high schools supplying this item of information. In twenty-three schools, more than half of these high schools, the enrolment is less than two hundred. The enrolment in thirty-five schools is less than five hundred. At the same time, occasional schools of good size provide arrangements for correspondence study; four of the forty-four here represented had total enrolments in excess of eleven hundred pupils.

The fields represented in the courses given by correspondence in these schools are remarkably diverse. We can do no more than illustrate this diversity: in English are to be found courses for the first seven semesters of the four-year period and journalism; in the social studies, civics, modern history, and the history of the United States; in foreign languages, Latin and French; in mathematics, advanced arithmetic, "special mathematics," advanced algebra, geometry, and solid geometry; in science, physiography, physiology, and physics; in the industrial and related arts, aviation, aeroplane engines, architecture, blue-print-reading, carpentry, drafting, ship drafting, electricity, automobile mechanics, pattern-making, refrigeration, watch and clock repairing; in commercial work, accounting, bookkeeping, shorthand, typewriting, advertising, and salesmanship; in agriculture, animal husbandry, poultry farming, soils, and practical forestry; in home economics, interior decoration and household management; and in the arts, harmony, cartooning, and commercial art.

At least two inferences may at once be drawn from the list. First, certain of these courses are among those usually offered in small schools as well as large. The explanation must be that conflicts in pupils' schedules urge the arrangement to provide for these subjects by correspondence or that, because of alternations, a given required course is not included in the offering during a particular school year. Second—an even more apparent inference—many of these courses are so specialized that most small schools cannot include them in the offerings. In both cases the plan of correspondence study operates to extend the offerings in the small school.

Approximately three-fourths of the schools report that credit toward graduation is allowed for the courses taken by correspondence. Practice varies concerning the amount of credit that may be earned in this way; interpretation of the amount reported indicates that it ranges from a half unit to "no limit set," the most frequent practices being found at one unit, two units, and four units.

The numbers enrolled in the courses during 1931-32 range from a single pupil to 70 pupils. The total number enrolled in 41 schools reporting is 306 pupils, or an average of 7 to 8 pupils for each school operating the plan.

The agencies drawn on to administer the correspondence courses

are both public and private. In some schools the agency is the correspondence-study division of the state university. In others the offerings of private organizations are utilized.

ANNUAL MEETING OF THE NORTH CENTRAL ASSOCIATION

The thirty-seventh annual meeting of the North Central Association of Colleges and Secondary Schools was held in the Stevens Hotel, Chicago, March 16-18, 1932.

Prior to the official opening of this meeting, the three commissions and various committees met to deal with problems confronting the Association. The Board of Review of the Commission on Institutions of Higher Education had been busy since Sunday, March 13, in considering the reports of inspection of the various institutions and in dealing with many other matters brought to its attention. This year the Commission on Secondary Schools, under the leadership of Chairman L. N. McWhorter, tried to work out a more efficient and more effective plan in considering the annual reports from the secondary schools. On Monday, March 14, Mr. McWhorter called a meeting of all the state chairmen for the purpose of improving the general plan under which this Commission has worked for several years. It was also the purpose of this meeting to secure a better and more uniform interpretation of the standards pertaining to the accrediting of secondary schools. In this meeting many confusing problems were solved, and the Commission was able to do its work more effectively and with less confusion than has been the case during many of the past meetings of this Commission. The Commission on Unit Courses and Curricula held meetings prior to the official opening of the annual meeting of the Association for the purpose of considering methods and plans of procedure for the work of this Commission.

President Edmonson called a special conference on Sunday, March 13, for a discussion of certain problems before the Association. Invitations to this conference were issued to the members of the Executive Committee, the chairmen of the state committees, the editorial board of the *North Central Association Quarterly*, the Board of Review, the fraternal delegates from other regional asso-

ciations, and a few former officials of the Association. Approximately forty persons attended this special conference.

The work done by the commissions and the various committees in meetings held before the opening date of the general session was responsible in a large measure for the unusual success of the thirty-seventh annual meeting. In his opening remarks before the first general session of the Association, President Edmonson said: "For the past three days the three Commissions of this association and certain other committees have been busy with problems that have been brought to the Association from member institutions. It is my impression that the Association meets this year with a feeling that a heavy responsibility rests upon it for meeting these problems in a way that will contribute effectively to the protection of the interests represented in this organization."

The Commission on Unit Courses and Curricula was responsible for the program given before the first general session of the Association. In introducing this program, President Edmonson emphasized the importance of the work which this Commission has been doing during the past several years. Attention was invited to the fact that this Commission will probably occupy an increasingly important position in the North Central Association. This Commission is in an excellent position for carrying on research on matters pertaining to curriculum-making. The work which this Commission does and the suggestions which it will make from time to time looking toward the improvement of the courses of study and the curriculum will undoubtedly have great influence on both secondary and higher education.

It has been pointed out by President Edmonson and by others that the present limited circulation of the *North Central Association Quarterly* does not insure that the work of this Commission will be brought to the attention of the classroom teacher. The editorial board, in making plans for the future of the *North Central Association Quarterly*, worked out a plan for the increased circulation of this educational magazine which will make it possible for a larger number of teachers to have easy access to the findings and suggestions of this Commission.

It has been the policy of the Association to invite a few speakers to

give addresses before the general Association. On Thursday afternoon President G. W. Rightmire of Ohio State University gave an address on "The School and the Social Order."

The Commission on Secondary Schools was responsible for a part of the program of the second general session held on Friday morning, March 18. H. G. Hotz, secretary of this Commission, made a report of the business transacted by the Commission on Secondary Schools. His report, in brief, is as follows:

1. The Commission on Secondary Schools passed on reports from 2,512 secondary schools and recommended 2,475 schools for approval by the Association. Of this number, 91 are new schools. Only 125 schools were warned for a violation of standards as compared with 191 that were warned a year ago.

2. The statistical report of the secretary of the Commission based on 2,387 of the 2,415 schools accredited during the past year revealed the following facts: (1) total enrolment in the high schools approved by the North Central Association, 1,153,185; (2) average enrolment, 483; (3) number of new teachers employed, 6,945; (4) total number of teachers employed, 50,091; (5) types of organization represented: (a) traditional four-year schools, 1,664; (b) three-year senior high schools, 315; (c) undivided five-year and six-year high schools, 408. In the statistical summary for this year the high schools belonging to the Association were classified into four groups according to the size of enrolment. The complete report indicating certain trends in the development of the secondary schools of the Association will be published in an issue of the *North Central Association Quarterly*.

3. A. A. Reed, University of Nebraska, presented the report of the Special Committee on College Entrance Practices in Relation to Three-Year Senior High Schools. This report indicated that commendable progress had been made in the adoption of transitional plans of admission and recommended that the Commission on Institutions of Higher Education again bring before its members the recommendations of the Association concerning college-entrance requirements adopted in 1927.

4. On the recommendation of E. E. Morley, principal of Heights High School, Cleveland Heights, Ohio, a resolution was adopted concerning the recruiting and subsidizing of schoolboy athletes.

5. Memorial resolutions were adopted in appreciation of the services of Charles H. Kingman, Horace A. Hollister, and Thomas Lloyd-Jones.

6. A few minor changes were made in the standards for accrediting high schools. The following new standard was proposed for submission to a referendum vote of the member schools.

PREPARATION OF SUPERINTENDENT AND PRINCIPAL

"The superintendent or the principal directly in charge of the supervision and administration of the high schools shall hold a Master's degree from a college

belonging to the North Central Association, or the equivalent, and shall have had a minimum of six semester hours of graduate work in education, and a minimum of two years of experience in teaching or administration.

"This standard shall not be construed as retroactive within the Association."

As an emergency measure it was also voted that the "Commission on Secondary Schools in session in 1933 be granted authority to waive Standard 8 (Teaching Load) for those schools which have met all other standards and which have found it impossible to meet this one standard for 1932-33."

On the recommendation of J. D. Elliff, chairman of the Committee on Standards, it was voted to "recommend the appointment of a committee of three to work in co-operation with the Executive Committee of the Association and the National Committee on Standards in the study of the standards of accrediting agencies with a view to a thorough revision of our standards for accrediting."

7. The following officers of the Commission were elected for the ensuing year. Chairman: George E. Carrothers, University of Michigan, Ann Arbor, Michigan. Secretary: H. G. Hotz, University of Arkansas, Fayetteville, Arkansas.

President A. G. Ruthven of the University of Michigan spoke on "The Super-University." In introducing President Ruthven, President Edmonson invited the attention of the Association to the fact that the North Central Association originated in the Michigan Schoolmasters' Club and that President James B. Angell, University of Michigan, was the first president of the Association.

The Commission on Institutions of Higher Education was in charge of the first part of the general program of the Association held on Friday afternoon. George A. Works, secretary of this Commission, gave a report on the business transacted by the Commission. This report will be reproduced in full in the *North Central Association Quarterly*.

Following the report of Dr. Works, President Edmonson introduced the principal speaker, Walter A. Jessup, president of the University of Iowa. In his address President Jessup pointed out that many of the standards for the accrediting of high schools and institutions of higher education are in need of thorough study and that, as rapidly as the results of research point the way to the improvement of standards, such improvements should be made.

Charles H. Judd, one of the delegates to the American Council on Education, presented a report concerning the activities of that organization.

One of the delightful features of the thirty-seventh annual meeting of the North Central Association of Colleges and Secondary Schools was the annual banquet. In accordance with the constitution and traditions of the Association, four general meetings are arranged each year, and each of the three Commissions has charge of one of these meetings. The other general meeting is the annual banquet of the Association. The attendance this year was 283. The program consisted of talks by fraternal delegates from other regional standardizing agencies; the presidential address given by James B. Edmonson, dean of the School of Education, University of Michigan; and an address, "The Challenge to Education," given by President H. W. Chase of the University of Illinois.

The report of the nominating committee was given by H. M. Thrasher, state high-school supervisor, Springfield, Illinois. A. A. Reed, university examiner, University of Nebraska, Lincoln, Nebraska, was nominated and elected president of the Association. In presenting Mr. Reed's name for nomination, Mr. Thrasher made the following remarks: "He has been for a generation of time identified with the North Central Association of Colleges and Secondary Schools and has been the leading force and a helpful influence in all the deliberations of the Commission on Secondary Schools. He has represented his own state in a way that must have brought satisfaction to all the educational elements of that state and has contributed by his intelligence, devotion, and charm of personality to all that has been achieved by the Commission. From 1918 until 1924 he filled the office of chairman of the Commission and has been in the forefront ever since in all of its deliberations."

Alfred H. Upham, president of Miami University, Oxford, Ohio, was elected first vice-president of the Association.

The second vice-president is J. E. Edgerton, state high-school supervisor, Topeka, Kansas.

The new members of the Executive Committee are F. L. Hunt, chairman of the faculty, Culver Military Academy, Culver, Indiana, and Dean J. E. Stout, Northwestern University, Evanston, Illinois.

During the week of the annual meeting the Executive Committee held three meetings. The important business transacted by this committee will be reported in the *North Central Association Quar-*

terly. One item of general interest, however, is the report of the Executive Committee making nominations for honorary membership in the Association. A. S. Whitney, formerly dean of the School of Education, University of Michigan, Ann Arbor, Michigan, and F. J. Kelly, chief of the Division of Colleges and Professional Schools, United States Office of Education, Washington, D.C., were nominated and elected honorary members of the North Central Association of Colleges and Secondary Schools.

A. W. CLEVENGER, *Secretary*

ANNOTATED LISTS OF GRADUATE THESES IN EDUCATION

A feature of the formal opening of the new Graduate Education Building at the University of Chicago, on March 14 and 15, was the publication of an *Annotated List of Graduate Theses and Dissertations*. The list is arranged in alphabetical order of the names of 1,235 graduate students whose theses during the period from 1900 to 1931, inclusive, had been accepted by the Department of Education in partial fulfilment of the requirements for Masters' and Doctors' degrees. Because certain of these names—forty, to be exact—are credited with theses at both levels, the list of theses exceeds in number the list of students. Of the theses, 119 are at the Doctor's level and the remainder are Masters' theses. Although the annotations are brief, they indicate clearly the nature of the investigations represented. The list contains also a detailed topical index of twenty pages, which will be helpful in locating the theses pertaining to particular subjects. We quote in full the Preface prepared by Dean Charles H. Judd.

This volume presents summaries of the theses and dissertations which were prepared by those who have received the degrees of Master of Arts and Doctor of Philosophy in the Department of Education of the University of Chicago. It is of interest for two reasons. First, it makes readily accessible to students of the science of education a large body of definite facts brought together through the industry of many workers. Second, it presents in tangible and compact form one outcome of the work carried on for somewhat more than two decades by the Department of Education.

Even a casual inspection of the titles of these theses and dissertations shows the development during recent years of interest in the study of a wide range of educational problems. Not only so, but the titles reported indicate the evolution of techniques for carrying on the scientific study of such problems.

Special attention is called to the evidence presented in this summary that the Department has, throughout its history, required every candidate for an advanced degree to complete an independent investigation. The custom of awarding the degree of Master of Arts to students who have merely followed the routine of class attendance has unfortunately become too common in American universities. The intellectual power which is cultivated by the preparation of a thesis or dissertation representing independent, constructive work is far greater than that which comes from following a course conducted by an instructor, however inspiring that course may be. The Department of Education believes that the highest grade of academic training is provided only when students are stimulated to undertake independent, individual inquiries.

The volume was prepared and is presented as a part of the celebration held on the occasion of the formal opening of the Graduate Education Building. This building is a gift of the General Education Board. It is devoted to advanced instruction in the field of education and to research and publication in this field. The opening of this building marks the close of one period in the life of the Department of Education and the beginning of a new period. The titles of theses and dissertations prepared by students do not indicate fully the productivity of the Department during the first period, but they show an important part of what has been undertaken and accomplished. They may be looked upon as typical of all the activities of the Department. The array of titles and the fact that the material equipment now placed at the disposal of the Department has been greatly enlarged are justifications for the hope and expectation that the future will witness both an expansion of the number and scope of scientific inquiries in the field of education and an improvement in the techniques employed in these inquiries.

Similarly helpful to the student of education is a new publication of the Office of Education in Washington, which is entitled *Recent Theses in Education* (Pamphlet No. 26, 1931) and which carries the subcaption "An annotated list of 242 theses deposited with the Office of Education and available for loan." Of the 242 theses, 132 are Doctors' theses and 110 are Masters' theses. These documents have been filed with the Office of Education in response to a recent request to departments and schools of education. Most of the investigations represented were completed during the school year 1930-31, but a few for other years were received and included in this first published list. The Foreword to the pamphlet includes the following statement.

All theses listed have been given the Library of Congress classification and are now available through interlibrary loan to students engaged in educational research. Application should be made through the borrower's librarian to the librarian of the United States Office of Education.

This service has been instituted by the Office of Education in response to many suggestions. Numerous deans of education, research workers, librarians, and superintendents have urged that some central agency collect information on studies completed but not published and studies in progress. They have further urged that the central agency selected make completed studies readily available.

The co-operation accorded this office in this new service has been very generous. Some schools of education and graduate schools have sent copies of all recently published theses in education; some have sent manuscript copies; some institutions have stated that it is impossible or inadvisable at present to require graduate students to deposit theses in this office but have forwarded our request to all recent candidates for the doctorate; many individuals have themselves submitted copies of their theses; and some institutions which issue abstracts or annotated lists have forwarded such publications. Such co-operation makes it probable that this office will become a depository for graduate studies in education. Additional lists will be issued as the receipt of these warrants.

As in the Chicago list, the titles are annotated. No index has been prepared, but the lack is in considerable part made up for by a grouping of the theses under such headings as "Administration and Finance," "Buildings and Equipment," "Curriculum Studies," "Education in Foreign Countries," and "Educational Psychology."

THE INVESTIGATION OF PLANS TO REDUCE SCHOOL BUDGETS

In view of the financial difficulties currently faced everywhere, the launching last year of the National Survey of School Finance may now be regarded as a most timely event. The project has recently, however, been given an additional timeliness by the decision of the board of consultants to include in the survey a special study of the methods of reducing school budgets that are being used by school authorities. We quote from the *United States Daily* the announcement of the inclusion of this special study and a report of the findings in a preliminary inquiry into the practices being followed.

All methods of retrenchment and economy in maintaining the public schools throughout the nation because of reduced budgets will be sought and tabulated by the National Survey of School Finance, Paul R. Mort, associate director of the survey, announced before the board of consultants in session at the Department of the Interior. . . .

An attempt will be made, he pointed out, to determine what economies are harmful to educational opportunities and what will not vitally affect them. . . .

The board discussed four outstanding types of retrenchments and economies which already have been tried by many school systems. One is classified as a

major retrenchment representing a definite curtailment of educational opportunities. Under this type of economy, the school year is shortened, nursery schools, kindergartens, health service, special teachers and typical classes, guidance personnel, vocational education, evening schools, summer schools, supervision, transportation, and similar activities are eliminated. Another policy introduced has been to raise the minimum age for school entrance.

A second type of retrenchment which may be justified in some instances, the board brought out in a preliminary report before it, calls for an increase in pupil-teacher ratios, the elimination of small classes in larger schools, the curtailment of the school-building program, and the curtailment of repairs. The purchase of new equipment is limited, salaries are reduced, and new teachers are hired at lower salaries than the regular scale.

Certain economies, it was brought out in the report, may be a definite step in the wrong direction. For example, to eliminate school clerks, the employment of students for this work, is regarded as a wrong move. Also the elimination of free texts and supplies, the reduction in transportation expenditures, the shortening of bus routes, and the increase in charges for tuition, gymnasium, locker, towel, and similar fees are regarded as bad methods of economy.

Within the same type fall the policy of eliminating teachers' sick leaves, cutting salaries of beginning teachers to that of substitutes, and limitation of extra-curriculum activities.

The preliminary report listed, as the fourth or miscellaneous type of economies, certain measures which are "earmarks" of good administration "but even more necessary now than in ordinary times." Members of the board of consultants reviewed those involving such policies as careful specifications for purchasing, careful check on deliveries as to amount and quality, and careful need of personnel, equipment, and supplies. Attention was given to methods of safeguarding funds and to an efficient planning of building construction.

Other measures of economy within this category touched such administrative matters as careful study of insurance rates, amounts, coverage, etc., getting lowest interest rates possible, receipt of interest on bank balances, placing cafeterias on a self-supporting basis, and efficient organization of classes to eliminate small sections.

At this writing the national Congress has up for consideration, in its efforts to reduce appropriations in order to balance the federal budget, the reduction or the elimination of the items providing for continuing the work on the National Survey of School Finance. We may hope that the Congress may not be guilty of the folly of interfering with the progress of this important and timely inquiry.

THE DISTRIBUTION OF EDUCATION

EDWARD L. THORNDIKE
Teachers College, Columbia University

It is fitting that at the dedication of this building in this university¹ we should consider matters of fundamental importance. That the topic to which I invite your attention is such, will, I hope, be found true as we proceed.

We may profitably follow the usage of economics and consider the distribution, as distinct from the production, of education. In all lands and at all times education has been distributed unequally. If histories were available for the individuals in this country born March 14, 1911, and coming of age tonight, they would vary from zero days of education in the case of a few to over three thousand days in the case of some who have lived in school or on vacation since they could toddle to kindergarten. If we could follow those who are now twenty-one for another score of years, we should find that some continue in college and beyond, or return to day schools or evening schools or summer schools after, or along with, productive labor.

The total amount of schooling would be distributed somewhat as in Figure 1. There would be a few persons having less than five hundred days. These would be the children attending irregularly in communities where the school year was especially short. There would be a few having more than two thousand days. These would be those who continued to college or professional school or late high-school years. The great majority would have from eight hundred to eighteen hundred days. The distribution would not represent equality of opportunity. Some children would have much education because they lived in states with compulsory education to a late age,

¹ Address delivered at the Educational Conferences conducted on March 14 and 15, 1932, by the Department of Education of the University of Chicago on the occasion of the opening of the Graduate Education Building.

strict enforcement of the law, and a long school year. Some would have little because of opposite conditions.

Within any one community where there is no variation in the law or in its enforcement, the variation in amount of schooling would still be wide. With the aid of the Commonwealth Fund, the Institute of Educational Research of Teachers College has followed the educational careers of 785 boys constituting a representative sample

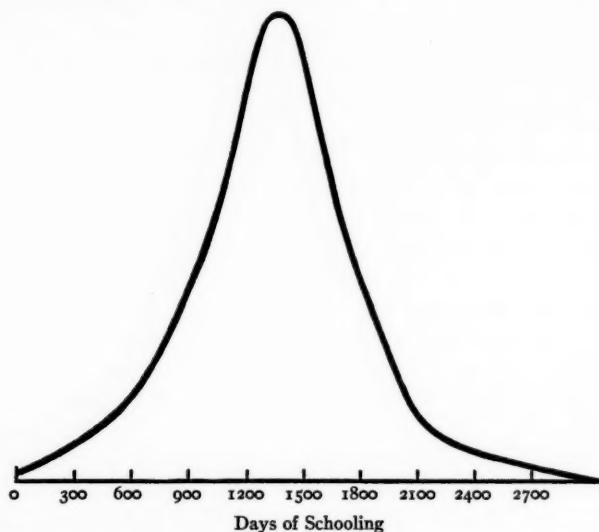


FIG. 1.—Approximate curve of distribution of number of days of schooling received by all persons attaining the age of twenty-one on March 14, 1932.

of eighth-grade pupils in New York City in November, 1922. The years of schooling (of approximately 180 days) varied from 6.5 to 16.5, the variation being continuous and uni-modal as shown in Figure 2. The age at leaving school permanently varied from thirteen to twenty-five. If the sampling had been taken for an age or for a much lower grade, the variation would have been even greater. Even in our sample some boys have 2.5 times as many years of schooling as have others.

The inequalities become even more striking if we make allowance

for the fact that a day's schooling at the age of six means something very different from a day's schooling at the age of sixteen, and something of much less importance, at least for intellectual education. Those who have the least education have it at the youngest ages and consequently are at a double disadvantage.

The general spirit of our country for the past hundred years has been to make great efforts to increase the amount of education but

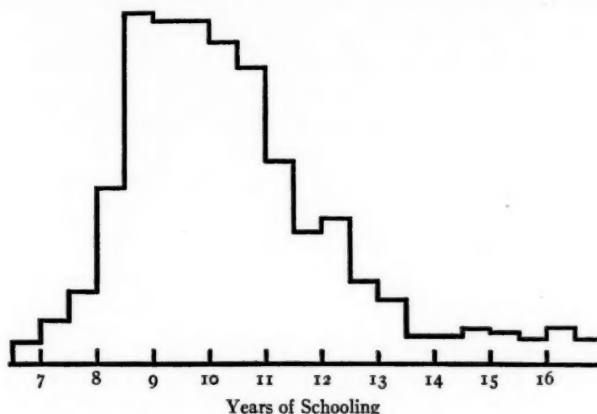


FIG. 2.—The number of years of schooling received by 785 boys who were a representative sampling of boys in Grade VIIIB in 1922.

to pay relatively little attention to its distribution. The plea of reformers has been for more education, regardless of who received it. There has been an indiscriminate urge toward more schools, longer school years, and later compulsory-attendance ages. Education of any sort for any person has been recommended as a national investment without much consideration of the differences in safety and income which may attach to the investment in certain boys and girls rather than in others. The mere volume of education has been taken as a measure of idealism, somewhat as the mere volume of gifts to beggars of all sorts used to be taken as a measure of philanthropy and charity.

In so far as any attention has been paid to the question of who were receiving much and who were receiving little education, the

general tendency has been to try to equalize the distribution, by aiding backward communities, increasing the number of days schools were in session, delaying the permissible age for leaving school, enforcing attendance laws, and other lines of effort designed to raise the amount for those who were receiving less than others. The doctrine that equalization of education is beneficent, partly by remedying certain definite accidents and injustices and partly by a mysterious power to advance democracy and social justice, has been very popular. Its influence has been potent, not only in the distribution of education so as to give most to those who have least, but also in the efforts of teachers to bring backward pupils up to grade and in the establishment of special classes for the deficient and dull.

It may be doubted whether either the policy of striving for indiscriminate increase in the volume of education or the policy of favoring especially those who would otherwise have very little schooling was ever the best for the general welfare. A very strong argument could have been made at any time in the last half-century for exercising careful discrimination in the distribution of education, the most being given to those who would use it best for the common good. A fairly strong argument could also have been made that those who would use more education best for the common good would be those who already had a great deal of it—for example, promising young students of science, who, with more education, might make discoveries of great benefit to the world, or promising young physicians, clergymen, engineers, and the like, who, with more education, might serve their communities much better. However, so long as there were many children who had only a few years of schooling, each of less than a hundred days, the benevolent doctrine of changing distribution in such a way as to favor the least educated was rarely questioned. The prevention of illiteracy and the extension of education so that every child would have at least a thousand days of schooling seemed a wise as well as a humane policy, even if not in the end the wisest.

When the school year was lengthened, the age of compulsory attendance raised to fourteen or sixteen, and provision made for special classes for the very dull, some thinkers began to consider the

interests of the intellectually able pupils and the public's interest in making the most out of its human resources. These thinkers asked, "Who are receiving the most education? Are they the ones who will use it best for the common good?" But they asked these questions usually in such forms as: "Who are going to college?" "Who should go?" "Who are proceeding on to high school?" "Who should?"

When the questions are asked in these forms, the answer to the first is that the high schools do get a selection that is superior in intellect, and the colleges and professional schools a selection that is still more so. The facts concerning the relation of intelligence to grade reached among the American soldiers of the World War, the facts revealed by surveys of high-school populations, and the facts shown by the tests of intellect or "scholastic aptitude" which have been more and more widely adopted by colleges since 1920, were, in spite of numerous individual misfits and dubious educational investments, accepted as comforting. Those who were found at the higher levels of schooling were much abler than those who had been eliminated by the way.

The question "Who are receiving the most education?" is not, however, answered adequately by answering the questions: "Who go to college?" "Who go to high school?" "Who attend medical schools?" or any other questions that ask who receive certain higher levels of education. "Most education" may mean two things: most education in actual amount of educational effort spent on the person or most education in amount of change made in the person. The former is roughly measured by the money spent on the pupil or by the days or years of schooling he receives. The latter is roughly measured by the amount he learns, or the grade he reaches, or the abilities which promotions, degrees, and diplomas are intended to represent. Both meanings are important, but they must not be confused. The facts just mentioned about the superior quality of students in higher institutions do not prove that the ablest children are receiving the most education in years. They may conceivably prove that the ablest children learn the most and advance the farthest, though having little more, or no more, education in the first meaning than the average or the dull.

Let us then study the two sides of the question together, observing, first, the amount of education (as measured in years of schooling) that is distributed to children of differing degrees of ability and promise and, second, the advancement which they make. The material I shall present concerns two groups of boys and girls in New York City whom we have studied for nearly ten years with the aid of the Commonwealth Fund. The differences in ability and promise which I have measured concern general abstract intelligence and scholastic achievement. I would gladly consider differences in morals, ambition, energy, and other qualities if the facts were available.

TABLE I
CORRELATIONS BETWEEN INTELLIGENCE AND SCHOOL ACHIEVEMENT MANIFESTED AT AGE 14.0 AND AMOUNT OF SCHOOLING AND GRADE REACHED IN THE CASE OF 266 BOYS SELECTED AT AGES OF 13.0-14.9 IN A CERTAIN SCHOOL

Measure Correlated	Abstract Intelligence*	Scholastic Achievement†
Age at leaving school.....	-.02	.04
Years of schooling.....	.08	.18
Grade reached.....	.59	.71

* Measured by scores in certain tests.

† Measured by the grade reached at 14.0 years of age.

Consider first 266 boys who were measured ten years ago at or near the age of fourteen years and no months and who were followed since that time until they left school permanently. They comprised all the boys within a certain age range (13.0-14.9 years) in Grades III-VIII of a certain school, attended largely by children of immigrants of very low social and economic status.

Table I shows the correlations between each of the measures of general abstract intelligence and scholastic attainment and three items of later educational career: (1) age of leaving school permanently, (2) total years of schooling from entrance to exit, and (3) grade reached. The first two measure much the same thing, differing only in so far as some children began school at an earlier age or, on the other hand, remained out of school temporarily for a half-year or more at some period. The first two thus represent the amount of schooling given to these boys by the community. The third repre-

sents the advancement which they attained as a consequence of the amount given to them and the use which they made of it.

The correlations with the last are high (.59 and .71), but the correlations with the amount of schooling given by society are very low. They average .01 for age at leaving school. They rise to an average of .13 for years of schooling. This difference I interpret as due to the fact that the abler, brighter children begin school earlier. They can get along in school life and can be endured by teachers at five and a half or six years of age, whereas the duller children are not fit to be sent and are not permitted to attend until they are six or seven. What society did for these boys was to let the abler ones go to school a few months earlier, but it did not let them stay even a single month later in their teens than the least able.

These 266 boys are not an entirely satisfactory sample in two respects. The very bright boys of the neighborhood who graduated from Grade VIII before the age of thirteen are not included, and the parents may have exerted influence to turn the able children to work for a profit at an early age. Let us, therefore, consider next 785 boys who are a fair sampling of all boys in Grade VIII B in public schools in New York City ten years ago. These exclude only the very dull who left school before reaching Grade VIII B. They too were measured with respect to general abstract intelligence and school achievement when in Grade VIII B in November, 1922. The facts are, in general, the same as in the former group, though not so pronounced. The abler pupils reach much higher grades, but they stay to only a slightly later age and are taught only a little longer. The correlations appear in Table II. Abstract intellect correlates .09 with age at leaving, .19 with the number of semesters of schooling, and .43 with the grade reached. School achievement up to the time of the test, or about age 14, correlates .06 with age at leaving, .25 with semesters of schooling, and .52 with grade reached.

I have examined the later school careers of the forty boys who had the forty highest scores of the entire 785 in abstract intellect and early school achievement and also the school careers of the forty boys who had the lowest forty scores of the 785 boys. When they left school, the ablest twentieth averaged only four months older than the lowest twentieth. The ablest twentieth had three semesters

—that is, a year and a half—more schooling, of which roughly one year is due to their entering Grade I earlier and a half-year is due to their staying to an age four months older. The excess caused by earlier entrance can hardly be credited to public or parental benevolence to the child, since the economic value of a child's labor from the ages of five and a half to six and a half is practically nil. What this extra year amounts to is that the public takes care of the child for the parents for five hours a day for five days a week.¹

TABLE II

CORRELATIONS BETWEEN INTELLIGENCE AND SCHOOL ACHIEVEMENT MANIFESTED IN GRADE VIII B AND AMOUNT OF SCHOOLING AND GRADE REACHED IN THE CASE OF 785 REPRESENTATIVE BOYS IN GRADE VIII B IN PUBLIC SCHOOLS IN NEW YORK CITY

Measure Correlated	Abstract Intelligence*	Scholastic Achievement†
Age at leaving school . . . . .	.09	.06
Years of schooling . . . . .	.19	.25
Grade reached . . . . .	.43	.52

* Measured by scores in certain tests.

† Measured by the grade reached at 14.0 years of age.

The high correlations of intelligence and scholastic aptitude with the grade reached at the time of leaving school are due to educational earnings by the boy, not to gifts by the community. The ablest twentieth just mentioned reaches a status four full-year grades in advance of the least able twentieth at an age only four months greater. Their average is high-school graduation; that of the low twentieth is graduation from the eighth grade. Twenty-nine of the

¹ The excess of schooling may not really be so great as a year and a half. Two pupils, one in the ablest and one in the least able twentieth, may have begun their schooling at exactly the same age and left at exactly the same age and still be recorded as having had, say, eighteen and sixteen semesters of schooling because the former entered Grade I A on entering school whereas the latter was put in a kindergarten or preparatory class or was given other irregular status so that his semester count, beginning with his official enrolment in Grade I A and compiled from his later record of failures of promotion, may be reduced in comparison with that of the abler boy. I should myself estimate that at least one-half year of the excess was thus spurious. The community, I should estimate, gives the ablest twentieth of the group about six months more schooling than the least able twentieth near the age of six and about four months more somewhere in the teens.

high forty graduate from high school; only one of the low forty graduates from the higher school.

These findings should force a thoroughgoing consideration of policies regarding the distribution of education. There are no adequate reasons for supposing that the case for the country at large is notably better than that for New York City. Each of you who is responsible for the management of the schools of a community may, very profitably, investigate the distribution of education in that community during the five or ten years past, or the years to come, or both. The technique is as follows: Take all the school population of some one age (say twelve) or all the school population in some one grade (say the sixth). Measure them adequately with respect to any of the qualities which concern their fitness to use education for human welfare. Then you may either do just as the community has been doing, save that you will keep track of their educational careers; or you may do what you think reasonable in view of the problems of distribution as you now see them, and, of course, also keep track of the educational careers of the pupils concerned. The former procedure may be dated back six or eight or ten years if at that time adequate measures of the abilities in question had been made in the case of any large and representative group of pupils. The facts concerning the distribution of education in relation to early school achievement can be ascertained, even if no tests were given, by comparing the later careers of pupils who at the age of fourteen had reached Grades III, IV, V, VI, VII, VIII, IX, and X, respectively. You may think that such investigations will disclose a better distribution of education in your community than they have disclosed in mine. I hope that will be so. I believe, however, that New York has been ahead of the country at large in providing educational opportunities and encouragement for able boys and girls, and I fear that the general status of distribution may be worse.

Present distributions are surely bad. It certainly is not reasonable that the intellectually ablest 5 per cent of boys should be kept in school to an age only four months beyond that to which the least able are kept. Suppose that we had eighty years of schooling to distribute among these eighty boys. Surely it would be wasteful and essentially unjust to give each boy one year more. More schooling

of the sort they have had will make the low twentieth very little happier or more useful, but it can be guaranteed that two years more for some of the top twentieth would enrich their individual lives and produce substantial benefits to the community. Indiscriminate advances in the compulsory-school age beyond sixteen seem, in view of the actual facts, a weak and wasteful procedure.

What shall we say of laws or customs which systematically and emphatically distribute the most schooling to those least able to get profit from it for themselves or for the community? Are they not intolerably unwise and unjust? Yet they have been very common. Thus a child of a certain age (say fourteen) is allowed to go to work if he has reached a certain advanced stage (say graduation from Grade VIII); but, if he has only reached Grade V, for example, he must be given more schooling. Of our forty especially able boys, five left school before they were fifteen; not one of the dull forty left at such an early age. We need laws to prevent greedy or perverse parents from depriving gifted children of schooling, not laws to force them to keep in school children who have neither the ability nor the interest to profit thereby.

The problem of providing schooling in some reasonable relation to the intellectual ability of the recipients is only one part of the general problem of the quantitative distribution of education. It would be a very inadequate treatment of the matter to use intellectual superiority alone as the measure of fitness for more education. Moreover, the problems of the qualitative distribution of education are at least as important as those of quantity. We have to ask not only, "How much schooling shall each sort of individual receive?" but also, "What kind of schooling shall it be?"

There is no time to do more than mention these questions and recommend them as worthy subjects for thought and research. I must use the time that remains to reinforce your memories of the message I have tried to deliver.

Zeal to produce more schooling, that is, to increase the amount of schooling given in our country, has been one of America's fine idealisms. Such zeal should be maintained, but with it there should be equal zeal to distribute this education so that those will have most who can use it best. What evidence we now have indicates that the

ablest receive very little more than the least able. For every boy in the top forty of our 785 who stayed in school beyond the age of eighteen, there were nearly ten boys below average ability who did so. The passion for equalization which had a certain nobility when a large percentage of children barely learned to read and write becomes unwise, almost ridiculous, when the question is of spending our resources to keep in school boys of sixteen, or seventeen, or eighteen who would be happier and more useful at work or at play. Our increased resources should be used to aid young men and women whom nature and nurture have chosen to profit from schooling.

Doubtless, great ability will often manage to get education outside of schools or to get along without it, but those who can do so much for the world with so little are the very ones who should be given more. In the wars we are incessantly waging against disease, misery, depravity, injustice, and ugliness, we should not provide our best marksmen with the poorest weapons nor ask our bravest to fight with their naked hands.

A STUDY OF ACCELERATION IN THE JUNIOR HIGH SCHOOL

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THEORY OF ACCELERATION

Teachers have long recognized that a small proportion of a typical group of pupils have the ability to acquire much more rapidly than others the facts, skills, and appreciations taught in the classroom. The recent development of the testing movement, with its wide use of intelligence and achievement tests, confirms this observation. The present study is not concerned with the factors which make for these differences except for the assumption that pupils with superior ability to achieve in academic work may be selected on the basis of intelligence tests, personality and temperament traits, and records of past achievement.

Two solutions to the problem of the gifted child have been offered. Justice is not being done the bright child, advocates of each solution recognize, if one relies on mere chance that such a child will make the best use of his superior talents. One solution is to shorten the period of elementary or secondary education, or both. The other is to broaden the program through additional offerings—to enrich the required offerings by the inclusion of wider reading, more difficult and complicated types of problems, and by insistence on greater self-direction in the planning and the organizing of materials. Those who advocate shortening elementary and secondary education contend that it is not possible to shorten without enrichment. Freeman¹ points out that a pupil's experience is enriched by acceleration, that in themselves the materials and methods of the grade above that in which the pupil normally belongs on a chronological basis constitute an enrichment.

So far as the writer is aware, no definite study has yet been made

¹ Frank N. Freeman, "The Treatment of the Gifted Child in the Light of the Scientific Evidence," *Elementary School Journal*, XXIV (May, 1924), 661.

to compare the achievements of pupils who have been accelerated a year in the junior high school with those of equal ability who have progressed normally. Alltucker,¹ in a significant study of 135 accelerated pupils out of an enrolment of 1,800 pupils in the Berkeley High School, Berkeley, California, found that the accelerated pupils had higher intelligence and ranked much higher in scholarship than the entire student body; that they were of normal physical development, excelled in leadership, and fitted socially into the senior high school; and that a large proportion participated in extra-curriculum activities.

THE PROBLEM

The problem to which the writer set himself was to determine the achievement in the ninth grade of pupils of superior ability who had been permitted to do the work of the seventh and eighth grades of the junior high school in one year in comparison with the achievement of a group of equal ability who had taken two years in which to finish the seventh and eighth grades. The following specific questions were considered: (1) How do two such groups compare in the ninth-grade subjects as measured by (a) teacher-made tests of new types and (b) standard tests? (2) How do the accelerated and the normal groups compare in achievement with the entire ninth grade? (3) How do the two groups compare in seventh- and eighth-grade subjects when measured by standard tests at the end of the ninth grade? (4) Do the health records of the accelerated pupils show that their health has been jeopardized as a result of their acceleration?

PROCEDURE

Of 150 pupils entering Grade VII B in the junior high school in Fond du Lac, Wisconsin, in September, 1928, the 30 most promising were selected as the experimental group to be accelerated. The following criteria were used as the bases of selection: (1) intelligence quotient based on the Otis Self-administering Tests of Mental Ability and the Terman Group Test of Mental Ability, (2) arithmetic age, (3) reading age, (4) educational quotient based on the Stanford Achievement Test, (5) chronological age, (6) sixth-grade marks, (7) health status, (8) social development, and (9) personality traits.

¹ Margaret M. Alltucker, "Is the Pedagogically Accelerated Student a Misfit in the Senior High School?" *School Review*, XXXII (March, 1924), 193-202.

During the first year in the junior high school this section carried English, general mathematics, social studies, general science, physical education, manual arts or home economics, and music and art. The class was permitted to progress as rapidly as their abilities warranted. Frequent pretests were administered, and materials already mastered were omitted. There was some shifting-about of materials in order to facilitate acceleration. Reasonable precaution was used to prevent the class from feeling hurried. In fact, neither the pupils nor their parents were advised during the first semester that the class was being accelerated. At the opening of school in September, 1929, twenty-two of the original thirty pupils remained in the section, which then entered Grade IX B. Several pupils had left the city, and several had been placed in normal-progress sections. Of the twenty-two pupils, ten were girls and twelve boys.

The best twenty-two pupils in the regular Grade IX B, consisting of 170 pupils, who had spent two years in the completion of the seventh and eighth grades, were chosen for the control group. Criteria used were previous scholastic records, chronological age, and intelligence quotient. This group consisted of twelve girls and ten boys. Each of the groups was built up to thirty-six by the addition of pupils with intelligence quotients above the median, the number of each sex being kept the same.

The median chronological age of the experimental group was thirteen years and nine months; that of the control group, fourteen years and six months. The quartile ranges were 2.5 and 4.0 months; the ranges, one year and eight months and one year and six months, respectively. The median intelligence quotient of the experimental group was 114.25; that of the control group, 117.00. The quartile ranges of the intelligence quotients were 6.5 and 3.22 and the ranges 33 and 32, respectively. Each section carried English, social studies, algebra, physiology, physical education, and an elective subject. Fourteen of the control group and sixteen of the experimental group elected Latin.

The two groups had the same teachers in algebra, in social studies, and in science. It was administratively impossible to give them the same English or the same Latin teachers. Inasmuch as Latin and English were correlated in each group by having the two subjects

taught by the same teacher and inasmuch, further, as the control group had begun their study of Latin in the upper-eighth grade, it was not possible to keep the two groups together in English or in Latin. No attempt was made, therefore, in these two subjects to administer identical teacher-made tests. However, in algebra, science, and the social studies, from six to fifteen extensive and inclusive new-type tests were made by the teachers and were administered to both groups over various units.

At the end of the year the following standard tests were administered to the pupils in Grade IX A, including 280 pupils: (1) Cross English Test; (2) Douglass Standard Survey Test for Elementary Algebra, Tests I and II; (3) Junior American History Test; (4) Brown-Woody Civics Test; (5) New York Latin Achievement Test;¹ (6) White Latin Test; (7) New Stanford Achievement Test, which includes reading, arithmetic, spelling, language usage, literature, history and civics, physiology and hygiene, and geography.

It may be mentioned in passing that Grade IX consisted of the following nine sections: experimental group, control group, two sections of rural-school graduates, one section of parochial-school graduates, and four sections of pupils who had come up through the junior high school.

The entire school, including, of course, the experimental and control groups, were subjected to regular inspection by one of the school nurses and by the school dentist. This fact makes it possible to compare the health status of the two groups in order to learn what effect, if any, acceleration may have had on the health of the experimental group.

RESULTS AND CONCLUSIONS

Space does not permit giving the distributions of scores made by the two sections on each of the tests administered. However, a summary giving the median of the sums of the tests in each subject, which is shown in Table I, gives a fair picture of the final results. Attention is directed to the fact that, although the median intelligence quotient of the normal-progress group is 2.4 per cent above that of the accelerated group, the average of the medians of the

¹ Latin tests were administered only to the sixty-nine pupils who carried that subject in Grade IX.

scores made on the 49 tests by the former group is only 1.23 per cent above that of the latter group. The range in the percentages of difference in medians is from 8.02 in favor of the control group in the standard algebra tests to 2.81 in favor of the experimental group in the standard social-studies tests. There was a difference of less than 1 per cent in three subjects on the basis of the standard tests and in

TABLE I
MEDIAN AND QUARTILE RANGES OF SCORES MADE BY EXPERIMENTAL AND
CONTROL GROUPS ON STANDARD AND NEW-TYPE
TEACHER-MADE TESTS

SUBJECT	MEDIAN		PERCENT- AGE OF DIFFER- ENCE IN MEDIAN	NUMBER OF TESTS	PERCENT- AGE OF TESTS IN WHICH CONTROL MEDIAN EXCEEDS EXPERI- MENTAL MEDIAN	QUARTILE RANGE	
	Experi- mental Group	Control Group				Experi- mental Group	Control Group
Teacher-made tests:							
Algebra.....	77.7	78.0	0.38	15	67	9.3	8.1
Social studies..	69.8	75.3	7.30	11	82	10.8	11.0
Science.....	64.9	63.2	2.69*	6	33	3.1	4.4
Standard tests:							
Algebra.....	17.2	18.7	8.02	2	50	3.8	4.1
Social studies..	248.7	241.9	2.81*	3	50	21.6	26.7
Science.....	108.8	110.8	0.18	1	100	5.8	8.7
English.....	332.5	335.0	0.75	3	67	16.6	14.5
Latin.....	207.5	220.0	5.68	2	50	14.0	21.0
New Stanford Achievement Test.....	104.2	103.7	0.48*	10†	50	2.8	5.2
Average.....	136.8	138.5	1.23	.....	61	9.7	11.5

* In favor of experimental group.

† Four of the Stanford tests were included in the preceding standard tests.

one subject on the basis of the teacher-made tests. On the basis of the eleven standard tests administered on ninth-grade subjects, the control group had the higher median in six cases, the experimental in four cases, and the two groups were tied in one case. In half of the ten Stanford achievement tests, the control section made the higher median; in half, the experimental section made the higher median. On the thirty-two teacher-made tests in three ninth-grade subjects, the control section had the higher medians in about two-thirds of the tests. The quartile range of the experimental group on

the intelligence distributions is twice that of the control group. On the average of all tests the quartile range of the experimental group is only 84 per cent of that of the control group.

In view of the data given, the first and third questions raised at the outset may be answered by stating that there seems to be no significant difference in the achievements of the accelerated and the

TABLE II

DISTRIBUTION BY TENTHS OF MARKS OF PUPILS IN ACCELERATED AND CONTROL GROUPS AMONG ENTIRE UPPER-NINTH GRADE, INCLUDING 280 PUPILS, ON BASIS OF STANDARD TESTS

TENTH	ENGLISH		ALGEBRA*		SOCIAL SCIENCE		SCIENCE		LATIN†		TOTAL	
	Experimental Group	Control Group	Experimental Group	Control Group	Experimental Group	Control Group	Experimental Group	Control Group	Experimental Group	Control Group	Experimental Group	Control Group
10.....	6	6	3	3	3	6	5	8	3	2	20	25
9.....	4	2	2	4	6	1	1	2	1	2	14	11
8.....	2	6	3	2	4	4	4	2	1	1	14	15
7.....	4	4	3	2	3	4	3	3	2	3	15	16
6.....	2	2	4	3	1	2	6	1	1	2	14	10
5.....	1	0	2	2	0	1	1	0	4	2	8	5
4.....	2	0	3	4	2	2	0	2	1	0	8	8
3.....	0	1	1	0	1	0	2	2	2	0	6	3
2.....	0	0	1	0	1	0	0	1	1	1	3	2
1.....	0	0	0	1	0	0	0	0	0	1	0	2
Total	21	21	22	21	21	20	22	21	16	14	102	97

* Only 255 pupils were studying algebra, the remaining number electing general mathematics.

† Sixty-nine pupils were studying Latin.

normal-progress groups in the ninth grade nor in tests on seventh- and eighth-grade subjects, which are covered by the New Stanford Achievement Test.

Table II gives the distributions of the two sections by tenths among the entire Grade IX A. Little difference exists between the two sections in the relative distributions as measured by the total in each tenth. It is interesting to note the more or less even distribution among the tenths above the median. Roughly speaking, three-fourths of both sections ranked above the median of the ninth grade and one-fourth below.

The distributions made by the two sections on the average of the decile ranks which each pupil made is shown in Table III. Each pupil was given a decile rank of from one to ten on each test. These ranks were added for each pupil and divided by the number of tests he had taken. A pupil who made an average of less than 5.5 would fall below the median of Grade IX A, while a pupil who made an

TABLE III
DISTRIBUTION OF AVERAGE DECILE RANKS OF PUPILS IN
EXPERIMENTAL AND CONTROL GROUPS BASED
ON ALL STANDARD TESTS

Pupil	Experimental Group	Control Group
1.....	9.5	9.95
2.....	9.2	9.2
3.....	9.0	8.8
4.....	8.8	8.7
5.....	8.3	8.4
6.....	7.9	8.4
7.....	7.9	7.5
8.....	7.4	7.0
9.....	7.2	6.9
10.....	7.0	6.9
11.....	7.0	6.8
12.....	6.8	6.6
13.....	6.8	6.5
14.....	6.5	6.4
15.....	6.3	6.1
16.....	6.1	6.0
17.....	5.9	5.9
18.....	5.3	5.7
19.....	5.3	5.6
20.....	5.2	5.4
21.....	5.2	4.6
22.....	5.0	.....
Median.....	6.9	6.8

average of more than 5.5 would fall above the median. Five pupils in the experimental group and two in the control group fell below the median. The control group made the highest as well as the lowest average, while the median of the experimental group was higher than that of the control group, namely, 6.9 as against 6.8. When, therefore, one considers the results of all standard tests, no significant differences appear in the two sections.

A careful health record was kept of each pupil in the two groups.

These records included: (1) contagious diseases; (2) defects of teeth, tonsils, eyes, vision, hearing, breathing, speech, glands, skin, bones; (3) symptoms of disease of lungs, heart, nerves; (4) posture; (5) anemia; and (6) malnutrition. Without going into a statistical study of these records, it may be observed that the school nurse found no evidence that the health of the accelerated pupils had been affected in any way by reason of their more rapid progress.

SOME IMPLICATIONS

The results of the various tests administered fail, in the aggregate, to show a significant advantage for either group. If it may, therefore, be tentatively concluded that the accelerated section is just as capable of doing the work of the ninth grade as is the group which was not accelerated, what are the implications? Whether the solution of the problem lies in acceleration or whether some other procedure is socially and economically more sound must still be determined.

There are several factors which the writer believes must be taken into consideration. In the first place, there is the question whether the pupil who is capable of acceleration is to remain in school beyond a certain period of time. If, for instance, such a pupil must drop out of school and enter industry as soon as he reaches the age of, let us say, sixteen and one-half years, it seems clear that the acceleration will enrich his program by including the subjects in the grade a year beyond that in which he would normally find himself. In this particular case, if the accelerated pupil is of median age, he will be able to finish the senior high school. He will have the opportunity of studying three years, instead of two, in the senior high school. Four or five more units of work will be opened to him, and to that extent his program will be enriched by virtue of his acceleration. The same comparison may be made on the assumption that the pupil will drop out of school at any particular chronological age level. Such a pupil's course will be extended and enriched by acceleration.

In the second place, what will be the effect of acceleration in terms of enrichment on the pupil who will stay in school only until he reaches a certain grade? Will the child of superior ability who will drop out of school at the end of the eighth grade have his pro-

gram enriched by acceleration? What of the child who will finish the senior high school and go no higher? Will the school be doing such a pupil a service by permitting him to finish the twelfth grade at sixteen instead of at seventeen years of age? On the face of it, the better policy would be to give such a child a twelve-year rather than an eleven-year program. If the American policy of prolonging the period of dependency of youth, in order to equip them better to fit into modern complex society, is correct, it would seem valid to give at least as much time to the training of the bright child as is given to the training of the dull or the average child. If the rapid invention of machinery and its gradual replacement of humans in our industrial society is cutting down the number of working days and hours a week, it will be unnecessary, economically, for a child to enter a gainful occupation at an early age. Again it would appear that a greater service will be done our youth by furnishing them with a program requiring each pupil to exert himself to the very limit of his capacity for a full twelve years. Tradition, public approval, and lack of openings in industry and commerce will usually keep the bright child in school through the senior high school. For those who go no farther, it seems unwise to lessen their opportunity for enrichment of experience by cutting a year from their high-school course.

In this discussion of the matter of policy consideration has been given to the bright child who will drop out of school at a given chronological age and to the pupil who will drop out at the completion of the high-school course. It has been observed that acceleration for the former constitutes an enrichment; for the latter, it does not. If the writer may hazard a guess, it is that the number of bright children who will finish high school is much larger than the number who will drop out at a definite age.

What of the bright boy or girl who after graduation from high school will enter a professional school, in which a long period of training and specialization is required? Will not such a pupil be benefited by the enrichment that comes through acceleration? With the greater degree of specialization that exists in all professions come longer periods of required training. The prospective physician or engineer no longer begins the practice of his profession when he

graduates from a four-year technical school. More often than not, he will spend an additional year, or longer, in specialization and several years of internship in a hospital or in a minor position under capable direction. Those in the teaching profession know the higher standards, from the point of view of specialization and the consequent time requirement, which recent trends have brought about. If one may assume that the proportion of bright children who enter professional life is greater than the corresponding percentage of dull or average children, it would appear that a service will be rendered the bright children by making it possible for them to enter specialized training at an earlier age. The writer does not wish to imply that acceleration as a mode of enrichment of experience is the only solution of the problem of the well-endowed child. He believes that depth is necessary, that methods of attack are to be established, and that the period of secondary education should witness the growth of the bright child, under gradually lessened direction, to the point of self-direction in his learning. Even admitting these points, the time factor, with the implications herein suggested, remains a consideration.

It seems pertinent, therefore, to suggest that, before a final decision to accelerate a bright child is reached, a careful study of his probable future vocational choice and educational requirements be made. This necessity places on the school the responsibility for a carefully-planned guidance program. The home conditions, the plans of the parents for the child, the child's occupational aptitude, his ambitions, his scholastic ideals, and similar factors need to be carefully considered. A conference with each child and with his parents should probably precede any decision to accelerate a child's progress in school. If, after such a conference, the counselor is convinced that the child feels the responsibility of working up to his best after acceleration and that the parents will co-operate with the school in seeing that the child maintains the quality of scholarship of which he is capable, it would seem wise to permit such a pupil to proceed more rapidly than normally.

The data given suggest that one should move cautiously in accelerating an entire class. The data presented under the heading "Results and Conclusions" indicate an interesting tendency with

regard to the increase in the spread which develops within a relatively homogeneous section within a period of two or three years. Both the groups selected for this study constituted the upper 15-20 per cent of their respective entering classes, judged both on the basis of intelligence quotient and of previous achievement. The assumption would be that, since a pupil's previous record placed him in the upper fifth of his class, he would remain in or near this upper fifth. The available data do not bear out this assumption. Table III indicates that this upper 20 per cent, at the end of two (in the experimental group) or three (in the control group) years, spreads over 60 per cent. The fact that practically the identical increase in spread occurred both in the experimental and in the control groups points very strongly to the improbability that acceleration is a factor in its cause. One is led to speculate on the probability that the pupil in the experimental group whose average placed him in the fourth tenth of Grade IX A would have been in the same tenth had he not been accelerated.

Accordingly, one hesitates to conclude that mass acceleration is the best solution to the problem. What evidence is there that the bright child who has ranked high in Grade VII B and who ranks below the median of his class in Grade IX A is benefited by having been accelerated? Even though the evidence adduced herein suggests that acceleration is not a factor in causing this lowering in relative rank, it seems difficult to defend the practice of acceleration in these circumstances. It would seem to be the better practice, if acceleration is to be considered as a policy, to insist that a child to be accelerated have a very high intelligence quotient, say above 120, and a very high scholastic record. If both these factors were required, probably not more than 6 or 7 per cent—at most, 10 per cent—would be eligible for acceleration. The probability is that, of this small percentage, not all will benefit by acceleration. In most schools this fact reduces the number to be accelerated to so small a figure as to make it impossible to form special rapidly-moving classes. The alternative in that event will be to permit individual outstanding pupils to skip a grade or a half-grade, making up any essential work in the materials missed because of special promotion.

THE STUDENT COURT

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Whether high-school pupils should be permitted to handle their own cases of discipline is a moot question. However, a number of high schools in the country have set up organizations the purpose of which is to do that very thing. These organizations are known as student courts. The writer was interested in knowing the advantages and disadvantages of such organizations, their jurisdictions, their forms of organization, the methods of selecting judges and juries, the authority of the courts, how the cases were reported, the nature of the court work, the penalties imposed, and the supervision of the courts. An analysis was made of the writings on the subject found in textbooks in education, educational periodicals, and high-school handbooks. In addition to the analysis of the literature, a number of personal interviews were held with principals and teachers who had had experience in supervising such organizations.

Jurisdiction.—An investigation of the practices revealed that the schools granted to their courts jurisdiction ranging all the way from cases arising only in the corridors and on the school grounds, where the pupils were placed in charge, to cases arising in the classroom, where the teachers were in control. Many of the cases mentioned were those arising in the corridors, study halls, assemblies, locker-rooms, libraries, classrooms, lunchrooms, and on the playgrounds. A few of the courts had jurisdiction over cases of attendance, smoking, gambling, and defacing of property, while very few had jurisdiction over all the acts of the pupils.

Organization.—In the matter of organization the schools with courts were found to divide themselves into four classes: (1) those in which the whole student council acted as a court, (2) those in which a part of the governing body acted as a court, (3) those in which the duty was placed in the hands of pupils selected at large from the student body, and (4) those in which the duty was placed in the hands of the home-room, class, or section members. Again,

these schools may be divided into two groups: (1) those having an all-school court and (2) those having more than one court, such as home-room, class, or section courts. Most of the organizations were found to be all-school courts, that is, one court which handled all the cases in the school.

Judges.—The number of judges used in a court ranged from one to fifteen. The majority of the courts studied used three or more judges. Apparently most school authorities were of the opinion that in numbers there is safety. Invariably the courts with a large number of judges used no juries.

Few courts were found in which faculty members served as judges with the pupils. An attempt was made to discover to what extent the sponsors served as judges with the pupils even though they were not officially placed on the roster as judges. Only one school was found in which faculty sponsors were officially appointed as judges to serve with the student judges.

In very few schools were the judges appointed by the faculty. In the majority of the schools the judges were selected in an election held by the entire student body. Courts composed of one judge from each class or home room were elected by the members of the classes or home rooms.

Juries.—The courts with a small number of judges ordinarily made use of juries. Most of the courts with three or more judges dispensed with juries. Usually the juries were used when the defendant pleaded not guilty. In most cases the juries selected were not permanent juries but were used only for particular cases. Various methods of selecting the juries were found. Some juries were selected at random from a jury box, others by election, some by appointment by the judge, and still others by appointment by the prosecuting and defending attorneys with the approval of the judge. The size of the juries ranged from five to nine members. A vote of two-thirds or three-fourths was usually required to convict an offender.

Reporting of cases.—In most of the schools studied all the pupils and teachers could report cases for trial, but in many instances reports must be made through a student-council member. The individuals who could report offenses ranged from the pupil who had

had no authority bestowed on him to the teacher and pupil who had been duly authorized to report. A common plan found for the reporting of offenses was the patrol or monitor plan. The individuals were either appointed or elected to their positions because of their qualifications of leadership. The period of service varied from a report period of six weeks to one year. The installation of monitors was usually a public affair held in the assembly. The number of monitors varied from 12 to 150. As soon as offenses were discovered, they were reported to the proper officials.

Time of court sessions.—In the reports of the frequency with which the courts met, the following phrases were found: "upon call," "every day during the activity period," "once each week," "regular meetings held twice a month," and "once each month." The most frequently mentioned phrases were "upon call" and "once a week." The frequency of meetings would undoubtedly be dependent on the jurisdiction of the courts, the number of cases handled, etc. A few schools mentioned that the court sessions were held during school hours.

Little information was available to determine whether the trials were held publicly or privately. The information gained through interviews indicated a tendency toward private trials.

Nature of court work.—In the majority of the courts studied the work of the court was to determine guilt or innocence and to give penalties when needed. This practice was found to be especially prevalent in schools having courts which abided by all the usual court routine and its devices. There was a decided tendency to conform to court practices as most people know them. Little evidence was found which would justify even an inference that constructive work in pupil adjustment was being carried on. Probably the only deterrent to the repetition of an offense would be the fear of receiving another court penalty. In a few instances offenses and penalties were listed in the form of a penal code. A few of the schools indicated that many of the first offenders were not sentenced but were warned against making other offenses. One high school stated in its handbook that the trials were often informal. The court admonished and attempted, when the pupil had failed, to make him see where he had failed.

Penalties.—The penalties given by the courts were so varied that the discovery of a central tendency was almost impossible, although it may be stated that detention was common. The literature and interviews indicated that such penalties as the following were used: detention, demerits, demands for apologies, lower marks, denial of awards, commitment to a "pest room," demotion from honor, removal from office, suspension from activities, assignment of menial tasks, suspension from school, assignment of extra library reading, exclusion from assembly, assignment of selections to be memorized, and the requirement that pupils bring their parents to settle difficulties. The literature and interviews failed to bring out any evidence of the use of parole systems or schemes for constructive discipline.

Supervision.—Most of the evidence throwing light on the supervision of the student court indicated that the school authorities deemed it absolutely essential that a close check be kept on the court's activities. Most of the decisions of the court required the principal's approval. A few of the courts gave decisions which were final, but no information could be found to indicate whether the school administrators held private conferences with the court officials before the trials. The personal interviews brought out the fact that many principals or court sponsors visited the court or held weekly meetings with the court officials. Undoubtedly, a great deal of guidance and direction was given in these meetings. All those interviewed expressed the idea that the student court has many attending evils and that, directly or indirectly, the court must be supervised and guided.

Conclusions.—The following conclusions were reached after the study was made.

1. Because of the varying conditions in schools and communities, it is difficult to state just how much jurisdiction student courts should have. However, they should not have more than they can safely handle. Practices indicate that pupils may well handle cases involving situations in which the pupils have control. To give the courts jurisdiction over all cases of classroom discipline and over attendance cases appears inadvisable. The teachers may occasionally refer such cases to the courts with no harm, but the courts should

never have complete original jurisdiction over such cases. The amount of jurisdiction will be dependent on the student and faculty opinion developed, the progress of pupil participation in the school government, etc. To the extent that responsibilities are given to the pupils, they come to look on the entire organization of the school as a co-operative institution. The faculty are no longer dictators but guides, and the pupils, especially those who have erred against their fellow-pupils and must stand trial, are interested in securing the confidence and advice of the teachers.

2. No one court organization is well adapted to all schools. Whatever organization is used should be kept simple and informal.

3. Since the student court demands expert guidance, it seems that less danger would be involved and better adjustments be made possible by the use of one court in the school rather than by the establishment of a number of session or home-room courts. However, the home room, because of the possibility of achieving there an ideal pupil-teacher and family relation, occupies a strategic position and offers a setting for effective work in pupil adjustment and guidance. The kind of court to be established must be decided in each school before a venture is made in this method of pupil participation in school government.

4. The reporting of offenses by pupils is a serious weakness of the court scheme. The argument that any good citizen will tell of offenses against the community carries little weight in the minds of high-school pupils when they know that even respected adults who endeavor to obey the laws are unwilling to report infractions. Tale-bearing, even though it can be defended by outsiders with irrefutable logic as necessary for the large social good, does not bring forth lasting good. The plan used in the Lincoln School of Teachers College is a step forward in avoiding the tale-bearing feature. There a check sheet is used, on which at special meetings of the class the pupils are expected to check their offenses. If the class feels that no improvement has been made in a particular case, the pupil is sent to the school court. However, it is doubtful whether high-school pupils, possessed of much personal pride, would admit their offenses.

5. If the court is to be a worth-while and functioning organization, the meetings of the student court should be held during school hours.

6. The purpose of the court should be not to determine the guilt of an individual and give a penalty but to determine where and why the individual pupil failed and to show him how to improve. Occasionally a penalty may be needed to bring about the proper adjustment of the pupil. The work should always be constructive. A spirit of helpfulness and guidance should prevail at all times.

7. If penalties are to be given, they should not be arbitrarily selected from a list of penalties but should be selected to fit the individual. The court should not be handicapped by a set penal code. Expert guidance is absolutely necessary in this phase of the work, whether the guidance be given directly or indirectly. The penalty should be appropriate to the offense and should be given to readjust the offender.

8. It is advisable for the court to meet soon after an offense has been committed in order that the penalty, if one is given, may not be too far removed from the original misdeed.

9. The regular court trial with all its nomenclature, dramatic presentation, and procedure does not always lend itself to the adjustment of a pupil in difficulty.

10. If the court is to succeed, sponsors or advisers cannot place the affairs of the courts entirely in the hands of the pupils without wise guidance.

11. The faculty adviser must be carefully selected if the principal is not to act in that capacity.

12. The faculty sponsor of the court need not attend all court meetings, but frequent meetings with the court officials are advisable if effective supervision is to be given.

13. In schools where home-room and session-room courts are organized instead of the one all-school court, the supervision must be just as thorough and close as the supervision given the all-school court. Undoubtedly the need of supervision increases in proportion to the number of courts in operation.

14. It is deemed advisable in most cases to avoid giving too much publicity to court cases. Private trials lend themselves to the proper adjustment of pupils much more readily than do most public trials. Extreme care should be used in giving out publicity about the stu-

dent court. Publicity may, if not properly handled, upset or prevent proper pupil adjustments.

15. If the court is to succeed, the need for a student court should come from within the school and should not be imposed by authority from without.

16. A good court organization is no assurance of a successful court.

17. The student court is another means for pupil participation in the government of the school.

18. It affords a channel through which the principal and the faculty may work in bringing about desired action or attitudes through adjustment.

19. It provides an opportunity for pupil adjustment through group influence.

20. It applies the principle of "learning by doing."

21. The personality of the supervisor or initiator is an exceedingly important factor in determining the probable success of a student court.

22. Success of the student court is also largely dependent on the pupils' whole-hearted interest in participation in the school government.

23. The probability of success of a student court is increased in proportion to the understanding of the plan and of its scope and limitations on the part of pupils, faculty, and patrons.

24. The attitude of the faculty must be one of sympathy.

25. Since the principal is responsible for the whole life of the school, whatever powers the student court has are delegated to it by the principal.

26. The principal should hold the power of veto since he is held responsible for the court's actions.

27. A principal should know his school well and be its leader if he expects a student court to afford another means of pupil participation in the school government with good results.

THE TEACHER AND EXTRA-CURRICULUM ACTIVITIES

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With the rapid development of extra-curriculum activities in the American secondary school, teachers are in most cases expected to assume some responsibility in directing these activities. To the extent that they are trained for such participation, their opportunities for securing employment are increased. An Ohio study¹ indicated that the chances were more than four to one that beginning teachers would be responsible for extra-curriculum duties requiring considerable time and planning. Cole² reported that 73 per cent of the secondary-school teachers of North Dakota supervised extra-curriculum activities. Similarly, the *Commonwealth Teacher-Training Study*³ found that the so-called "extra-curriculum activities" were prominent among the many duties of the teacher.

The writer made a survey of approximately fifteen hundred recent teaching graduates of Ohio State University and found that about two-thirds of these graduates performed extra-curriculum duties in addition to their teaching. The activities of these teachers were classified and studied with respect to the prevalence with which they supervised extra-curriculum duties, the time consumed in such duties, and the previous training for these extra responsibilities. The types of activities were also analyzed according to the frequency with which each college major group directed them.

¹ Earl W. Anderson, "Extra-Curricular Duties," *Educational Research Bulletin* (Ohio State University), VIII (October 9, 1929), 315-17.

² Robert D. Cole, *The High School Teaching Population of North Dakota*, p. 29. School of Education Bulletin, No. 5. University of North Dakota Departmental Bulletin, Vol. XIII, No. 5. Grand Forks, North Dakota: University of North Dakota, 1929.

³ W. W. Charters and Douglas Waples, *The Commonwealth Teacher-Training Study*, p. 21. Chicago: University of Chicago Press, 1929.

Classification of extra-curriculum activities.—When a master list of the activities carried on by the teachers was made, it was discovered that the number and variety of these duties were very great. Some system of classification and simplification was necessary. Of the various classifications available, the two that seemed best for this particular study were the classification used in *The Commonwealth Teacher-Training Study* and a classification reported in the *North Central Association Quarterly*.¹ The latter was finally adopted

TABLE I
PERCENTAGE DISTRIBUTIONS OF TEACHING GRADUATES WHO
WERE DIRECTING VARIOUS EXTRA-
CURRICULUM ACTIVITIES

Extra-Curriculum Activity Directed	Percentage of Women	Percentage of Men	Percentage of Both	Rank
Organization and management	6.1	6.4	6.2	6
Community activities	3.2	3.5	3.3	11
Religious and social-welfare clubs . . .	13.3	12.5	13.0	3
Purely social activities	4.5	2.5	4.0	10
Athletics	17.0	32.7	21.0	1
Publications	5.1	2.8	4.6	9
Dramatics	19.7	10.0	17.3	2
Public speaking	8.6	6.4	8.0	5
Musical activities	5.0	3.9	4.7	7.5
Subject clubs	13.3	10.0	12.4	4
Miscellaneous clubs	3.1	9.3	4.7	7.5
Assemblies	0.7	0.0	0.5	12
Home rooms	0.4	0.0	0.3	13

since the activities which had been listed seemed to group themselves more readily under this classification.

The data with respect to the types of activities performed are summarized in Table I by sex and by totals. It is seen that certain activities were primarily directed by women and others by men. Thus, the direction of athletics and miscellaneous clubs were predominantly duties of the men, whereas dramatics, public speaking, music, publications, and subject clubs were most frequently directed by women. The ranks of the totals, irrespective of sex, show that athletics was given the greatest amount of emphasis. Dramatics was the next most popular, followed in turn by religious and social-

¹ Thomas Deam (chairman), "Report of the Sub-Committee on Extra-curricular Activities," *North Central Association Quarterly*, III (March, 1929), 532-88.

welfare clubs, subject clubs, public speaking, and activities in connection with organization and management. Surprisingly few of the teachers reported participation in music, assembly, and home-room duties. Cole reported a slightly higher percentage of teachers in charge of athletics, publications, dramatics, and music and smaller percentages directing religious and social-welfare clubs. Comparisons between the two studies were somewhat difficult to make because of the fact that Cole utilized a different classification of activities.

Time spent in extra-curriculum activities.—The loads for the activity groups showed considerable variation. Duties connected with athletics, publications, and organization and management consumed the most of a director's time. Drives, community activities, and assembly duties took the least amount of time. The median amount of time required by most of the activities fell in the range of 31-40 hours a year, whereas the median for athletics fell in the range of 81-90 hours. During the first year of teaching the average activity load of a teacher was 1.73 activities. The load gradually decreased to 1.62 in the fourth year after graduation, but there was a slight increase to 1.67 in the fifth year.

No single activity, unless it should be athletics, consumed a prohibitive amount of a teacher's time, but, when teachers were asked to shoulder responsibilities in a number of activities, the load often became burdensome. One person who had majored in physical education, a graduate of 1928, reported that he spent approximately 740 hours annually in the direction of four activities. Basket ball alone took 432 hours of his time.

Training for extra-curriculum activities.—When more than half the teaching graduates supervise extra-curriculum activities, the problem of adequate training for such participation becomes important. Teacher-training institutions need to recognize adequately the need for preparing teachers for these duties. An analysis was made of the extent of training for extra-curriculum duties reported by the graduates in this study, and the results are given in Table II. This table is read as follows: Of those persons directing activities concerned with organization and management, 61.8 reported that they had had no training for these duties and 38.2 per cent that they had had

some training. Of the training received, 82.0 per cent had been received out of college. In this study "training" was used in a general sense, referring to any previous preparation or experience which the graduates had found helpful.

It is noted that approximately 40 per cent of the graduates who co-operated with extra-curriculum duties had had no previous training for the activities in which they participated. Another inves-

TABLE II
ANALYSIS OF TRAINING FOR VARIOUS ACTIVITIES CARRIED
ON BY TEACHING GRADUATES

EXTRA-CURRICULUM ACTIVITY DIRECTED	PERCENTAGE OF TEACHERS				
	Having No Training	Having Previous Training	Trained Outside of College	Trained in College Classes	Trained in College Activities
Organization and management.....	61.8	38.2	82.0	73.0	27.3
Community activities.....	45.4	54.6	35.0	84.0	17.6
Religious and social-welfare clubs....	43.0	57.0	74.5	30.5	34.0
Purely social activities.....	82.3	17.7	33.3	0.0	78.0
Athletics.....	29.0	71.0	42.0	72.3	56.0
Publications.....	42.0	58.0	46.0	46.0	31.0
Dramatics.....	44.0	56.0	63.5	35.5	28.6
Public speaking.....	35.3	64.7	41.0	51.0	33.4
Musical activities.....	13.5	86.5	80.0	33.3	44.5
Subject clubs.....	26.0	74.0	33.7	75.0	26.8
Miscellaneous clubs.....	50.0	50.0	78.3	56.5	17.4
Assemblies.....	67.0	23.0	0.0	100.0	0.0
Home rooms.....	100.0	0.0	0.0	0.0	0.0
Total.....	40.0	60.0	52.5	55.5	37.8

tigator¹ found that 74 per cent had had no training for such work. Although 60 per cent of the graduates in the present investigation indicated that they had had some training, in many cases this training was very limited and general. More persons indicated that they had received training in college classes than reported training from either of the two other sources listed. In this connection, Irvine reported that the most valuable courses in preparation for such activities were the following (in the order named): educational psychology, educational sociology, school management, extra-curriculum ac-

¹ Paul Irvine, "The Relation of Undergraduate Preparation to Teaching Positions among Graduates of the School of Education." Unpublished Doctor's thesis, New York University, 1928.

tivities, administration of junior high schools, and principles of secondary education. It will be noted, however, that the training received in most of the courses named is very general, and perhaps additional courses which are more specific should be given, such as training for directing dramatics, coaching various forms of athletics, managing school publications, and directing school clubs. In many cases such courses are given by the departments concerned.

Obviously, the needs of the extra-curriculum activities for trained supervisors vary widely. Athletics, dramatics, publications, public

TABLE III
PERCENTAGES OF TEACHERS SUPERVISING EXTRA-
CURRICULUM ACTIVITIES WHO HAD MAJORED
IN VARIOUS SUBJECTS

Major Subject	Percentage of Teachers
Physics	79
Physical education	74
Mathematics	66
History	63
Home economics	61
Sociology	60
Industrial arts	55
English	50
Chemistry	50
Spanish	49
Latin	49
French	48
Biology	40
Fine arts	39

speaking, musical activities, subject clubs, and home-room duties are undoubtedly among those that require considerable training to enable a teacher to give effective supervision.

Analysis of extra-curriculum activities by subjects.—Considerable variation was found in the extent to which persons who in the university had majored in various subjects assisted in the supervision of extra-curriculum activities. The percentages of participation ranged from 39 for fine arts to 79 for physics. These comparisons are shown in Table III according to subject majors. It is not surprising that physical education ranks comparatively high since teachers in that field fully expect to devote a considerable part of

their time to extra duties. The high ranks of physics and mathematics are interesting. One reason for these high percentages is the fact that a large number of the persons who had majored in these subjects assisted with athletics.

Further analysis of the types of activities most commonly supervised by persons who had majored in the various subjects is made in Table IV. This table is read as follows: None of the persons who had majored in biology had duties in connection with organization and management or in community activities, while 30 per cent were in charge of religious and social-welfare clubs, 9 per cent supervised purely social activities, and so on. Persons who had majored in English tended to direct dramatics more frequently than any other activity, although a considerable number of them also participated in athletics and subject clubs. Persons who had majored in French and sociology also tended to prefer dramatics.

The directing of athletics was cared for principally by persons who had majored in physical education, history, sociology, mathematics, physics, chemistry, and industrial arts. Publications were cared for by persons who had majored in the commercial subjects more often than by any other group. Subject clubs naturally fell to the lot of some teacher of the subject involved. However, persons who had majored in certain subjects, such as biology, home economics, fine arts, and Spanish, took part in more subject-club activities than persons who had majored in other subjects.

A surprisingly small number of teachers had assembly and home-room duties. Some additional teachers, however, listed home-room duties under administrative functions, which were analyzed separately in this survey.

Cole found that persons who had majored in English tended to supervise activities such as dramatics, publications, declamations, and literary societies. Only a small percentage of persons in this study who had majored in English supervised publications. Dramatics, athletics, subject clubs, public speaking, religious activities, and organization and management duties—all ranked ahead of publications. This discrepancy may be partly caused by the fact that Cole made a study of persons who were teaching English, whereas the present study was concerned with persons who had majored in

TABLE IV
PERCENTAGE OF PERSONS MAJORING IN VARIOUS SUBJECTS WHO WERE DIRECTING
EACH TYPE OF EXTRA-CURRICULUM ACTIVITY

Subject	Organi- zation and Mane- gment	Commu- nity Activities	Religious and Social Welfare Clubs	Purely Social Activities	Athletics	Publica- tions	Dramat- ics	Public Speaking	Musical Activities	Subject Clubs	Miscel- laneous Clubs	Assem- blies	Home Rooms
Biology.....	0	0	30	9	30	0	4	9	9	39	13	0	0
Chemistry.....	12	12	12	12	41	12	18	0	0	0	0	0	0
Commercial subjects.....	0	14	0	14	17	33	17	0	14	16	0	0	0
English.....	18	6	20	5	24	13	45	22	9	24	6	1	1
Fine arts.....	7	0	29	0	21	14	7	0	7	57	14	0	0
French.....	7	0	37	18	22	7	44	11	11	37	4	0	0
History.....	11	7	21	3	52	8	39	28	11	17	7	1	1
Home economics.....	11	0	22	17	28	5	31	8	8	47	3	3	0
Industrial arts.....	14	0	36	0	43	7	0	0	0	0	0	6	0
Latin.....	37	0	19	12	31	19	7	12	12	31	0	0	0
Mathematics.....	12	4	27	14	45	4	20	4	8	22	20	0	0
Physical education.....	3	0	32	9	88	0	9	0	7	2	2	2	0
Physics.....	11	11	22	17	44	5	22	5	0	11	17	0	0
Sociology.....	4	12	42	4	46	12	42	29	8	4	4	0	0
Spanish.....	0	0	29	0	29	0	29	14	14	43	0	0	0

English; it is unfortunately true that teachers often do not teach the subjects in which they majored. To check this variance, the writer made a supplementary study on the basis of the subjects taught rather than on the basis of majors in college. The resulting findings showed some variations from the analysis by major subjects, but there was also considerable agreement and a closer approximation to the results reported by Cole.

Summary and conclusion.—The present investigation and other recent studies have shown that more than 50 per cent of the secondary-school teachers throughout the country must perform extra-curriculum duties, for which they are in most cases inadequately trained. Teacher-training institutions should study this problem and make adequate provisions for further development of courses that will train persons majoring in the various subjects for the activities which, experience has shown, they are likely to direct.

HOW DISTINCTIVE ARE SMALL SIX-YEAR HIGH SCHOOLS?

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The six-year high-school organization has been approved by the state departments of education of more than one-fourth the states because of its promise of help, especially to smaller schools, in attacking the serious curricular and general administrative problems encountered in the effort to reorganize for better secondary education. If it is to be of real service in solving these problems, however, the six-year school will necessarily differ from the usual four-year institution in several essential features. If it fails in this differentiation, it loses its character as a reorganized unit.

The purpose of this study is to examine several of the features of these schools and their principalships in schools in which the differences should be discoverable, material drawn from 119 six-year high schools and 196 four-year high schools for white children in the state of Kentucky being used. The data were taken from the annual reports made by principals and superintendents to the state department of education for the session 1930-31 and represent 315 schools, each employing from three to ten teachers, from a total of 429 public high schools accredited by the state college association. Schools eliminated through this restriction were either large and non-typical schools, as in the case of forty-four city white schools and twenty colored schools, or small two-teacher schools.

Of this group of 315 schools, comprising almost three-fourths of the accredited public schools of the state, 38 per cent are organized on a six-year basis. Furthermore, these schools are not restricted to any one type of administrative unit, 76 per cent of the 119 six-year schools being found in county systems, 21 per cent in independent graded-school districts, and 3 per cent in city systems with populations ranging from 2,244 to 6,485. Graded-school districts are per-

mitted to have their own schools independent of city and county systems and, on the average, represent population areas of from 1,000 to 2,500. In other words, of the 177 county high schools studied, 51 per cent have the six-year organization; of the 109 independent graded schools, 23 per cent are of this type; and, of the 29 city schools, 14 per cent are six-year schools. These facts indicate that there is great interest in the reorganization of the education offered by the smaller high schools and that many superintendents and principals find the six-year organization better adapted to promote the desired changes than is the usual four-year school. Hence, it will be interesting to note in what features the two organizations differ in practice, especially as regards the principalship.

SIZE OF SCHOOLS

Advocates of the six-year high school have claimed that its new curriculum could be better and more economically administered as a result of the increased size of the unit. Size may be thought of in terms of pupils enrolled or in terms of teachers employed. With regard to the first criterion, the principal of the average six-year high school in Kentucky finds his enrolment differing little from that of his colleague in a four-year school, the median enrolment in the former being 97.4 and in the latter 93.3. Each school is, therefore, smaller than is desirable, and it is extremely questionable whether a six-year organization of this size or smaller can produce many of the anticipated benefits. A recent study in Indiana, where the median enrolment in schools of this type was 125 pupils, showed their curriculums to have had only slight reorganization.¹ Rule, in a well-considered statement, opposes the formation of six-year schools if the enrolment is less than approximately 150 pupils in the six grades. In defense of this position he holds that only enrolments of this size and larger will justify the employment of the necessary six or seven teachers and allow for some differentiation of the cur-

¹ Donald Lionel Simon, "The Six-Year High School in Indiana." Unpublished Master's thesis, Department of Education, University of Chicago, 1928. Quoted by William H. Bristow, Emery N. Ferriss, and R. M. Stewart, "The Curriculum of the Rural Secondary School," *The Status of Rural Education*, p. 130. Thirtieth Yearbook of the National Society for the Study of Education, Part I. Bloomington, Illinois: Public School Publishing Co., 1931.

riculum.¹ Further consolidation of the very small schools in Kentucky seems to be in order as a prerequisite to effective reorganization.

The other aspect in which the two types of schools are presumed to differ is the number of teachers employed. It is to be anticipated that the ordinary four-year school will be unable to offer the desirable enriched curriculum on being converted into a six-year unit unless there is some change in the size of the staff, great as the temptation may be to make the attempt. Recognition of the need of a safeguard at this point is found in the fact that standards in sixteen states set the minimum number of teachers necessary in an approved six-year school, the average minimum being five.² When the two groups of Kentucky schools are compared, an anomalous situation appears; the median number of teachers in the six-year schools is 4.5 as against a median of 4.7 in the four-year schools. In the neighboring state of Indiana, it is reported by Shannon, the average number of teachers in six-year schools is seven, while the ordinary township high school employs four teachers.³

Thus, when size is examined, either from the standpoint of the pupil enrolment or from the standpoint of the number of teachers employed, it is seen that, other things being equal, the principal of the average six-year high school in Kentucky finds little to distinguish his organization from that of the average four-year high school.

CURRICULUM

No feature of the six-year school might be expected to be more distinctive than the curriculum offered, for the six-year school exists to extend the period of secondary education through the earlier introduction of certain subjects, to provide opportunity for explora-

¹ James N. Rule, "Influence of State Departments of Education upon Curriculums of Small High Schools," *The Development of the High-School Curriculum*, p. 90. Sixth Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1928.

² Subcommittee of the National Committee on Research in Secondary Education, Emery N. Ferriss (chairman), *The Rural Junior High School*, p. 19. United States Bureau of Education Bulletin No. 28, 1928.

³ J. R. Shannon, "An Unexploited Opportunity in the Six-Year High School," *School Review*, XXXVI (December, 1928), 745.

tion of interests and for differentiation, and to make possible a richer course through the addition of activities, such as art, music, and the practical arts. A fine example of a curriculum which meets such requirements in a six-teacher six-year high school has been recently described by Spaulding.¹ Unfortunately, it is not possible here to make a statistical analysis of the curriculums provided in the schools under study, but scrutiny of them shows many deviations from the blue prints for reorganized high schools. Resources and a sufficient number of teachers with the needed preparation are not available for the offering of desirable programs in most of these small schools.

Making the best of the situation, the state department of education has drawn up approved curriculums for two types of six-year schools: one for the academic type and the other for the agricultural and home-economics type. In schools with five teachers the required subjects in these two curriculums agree course for course, with one exception, the emphasis on agriculture and home economics in schools of the second type appearing in the electives. The daily schedule recommended for each type of school calls for a thirty-minute period to be used for extra-curriculum activities and "such teaching of music, fine arts, and physical education as the small school can do."² Only required work is offered in the first two years, Grades VII and VIII. This work consists of two years each of English and mathematics of the usual types, geography, physiology, elementary agriculture, United States history, history of Kentucky, and civics—a program which is little suggestive of the junior high school years.

When the curriculums approved for five-teacher four-year schools are compared with the curriculums described, no differences are encountered in the academic type, while the agricultural and home-economics course in the four-year school is richer in electives. On the other hand, the five-teacher six-year school has the advantage over the four-teacher four-year school in providing a larger number of electives, such as foreign language, in the academic type of school.

The net result for the six-year high school following the approved

¹ F. T. Spaulding, "Can the Small High School Improve Its Curriculum?" *School Review*, XXXIX (June, 1931), 423-38.

² "The High School Curricula," p. 2. Mimeographed bulletin of the Kentucky State Board of Education, August, 1930.

course is a curriculum which, at its best, resembles that of the standard four-year school rather than a curriculum which surpasses the four-year curriculum in richness.

STATUS OF THE PRINCIPALSHIP

Five aspects of the status of the principalship in schools of the two types were examined, namely, training of principals, their experience, tenure, salary, and load. In some of these aspects—teaching load, for example—the six-year principal should have the advantage if the principles on which this type of school is based are in operation. About other aspects theory has little to say, and the

TABLE I
PERCENTAGE DISTRIBUTION OF PRINCIPALS IN 119 SIX-YEAR HIGH SCHOOLS AND IN 196 FOUR-YEAR HIGH SCHOOLS ACCORDING TO AMOUNT OF PREPARATION

Preparation	Principals in Six-Year High Schools	Principals in Four-Year High Schools
College training:		
Three years.....	1.7	0.5
Four years.....	73.9	78.6
Graduate training:		
One year.....	21.9	20.9
Two years.....	2.5	0.0
Total.....	100.0	100.0

published data are meager. Consequently, a survey was made of the facts in the 119 six-year high schools and the 196 four-year schools.

An analysis of the undergraduate and graduate training of the principals shows honors to be divided about equally between the two groups of principals, as is seen from an inspection of the percentages in Table I. Included under the term "college training" is the work of eighteen principals who had taken part of their training in normal schools and that of two principals who had taken all their training in normal schools. An encouraging percentage of the principals in schools of both types have made special graduate preparation for their work, the percentage comparing favorably with that reported by Eikenberry for small high schools.¹

¹ Dan Harrison Eikenberry, *Status of the High School Principal*, p. 8. United States Bureau of Education Bulletin No. 24, 1925.

A rich teaching experience is an asset to a principal in either type of school, but a strong case can be made for the argument that the experience of the six-year principal, because of the nature of his school and its relationships, should be especially fine in amount and character. The six-year principals of this study have a slight but insignificant margin with respect to length of teaching experience prior to entering their present positions, the median of their experience being 6.2 years as against 5.9 in the case of principals in four-year schools. In the graded-school districts this margin increases to a year and one-half.

When this experience is analyzed into previous elementary-school and high-school teaching, the margin in favor of the six-year principals is seen to be the result of longer teaching experience in elementary schools. The median number of years of experience in elementary schools is 3.1 in the case of the six-year principals and 2.5 in the case of the four-year principals, while the median number of years of teaching experience in high schools is 3.9 in the case of the former and 4.1 in the case of the latter. Thirty and one-tenth per cent of the principals in the six-year group and 37.1 per cent of those in the four-year group have never taught in elementary schools, while 19.3 per cent of the former group and 20.5 per cent of the latter group have never taught in high schools.

When a school is reorganized, the new program adopted should be preserved largely unchanged for a sufficiently long period of time that the pupils may benefit through continuous study and that the results may be properly evaluated. The rapid turnover of principals in small schools militates against this continuity. Thus, it would seem that longer tenures are as highly desirable, or even more desirable if possible, in the case of principals in reorganized schools as in the case of those in schools of the usual type. Actually the principals in each of the two groups in this study have served in their present positions a median of 3.6 years; consequently the average pupil in a Kentucky six-year school works under two principals during his secondary-school career. This median is a year longer than Eikenberry found to be the median tenure of principals in various types of high schools with enrolments of 100-200 pupils.¹

The salaries of the principals in the two groups of schools show no

¹ *Ibid.*, p. 31.

distinguishable differences. The median of the annual salaries is \$1,913 in the case of the six-year principals and \$1,932 in the case of the four-year principals.

Thus far, the reader will observe, similarity in status is characteristic, while differences are minor. Equality of pay might be expected to secure men of similar training and experience, while remuneration would be one of the factors influencing turnover. With regard to load, however, differences should be evident if one of the basic claims of the advantages of the junior-senior organization is realized.

It is argued that load may be improved in two directions: greater specialization in teaching and a reduced teaching load for the principal. In the writings of Ferriss, Rule, and Shannon already cited, the statement is found that one of the chief advantages of the six-year organization is the reduction in the number of subject fields in which a teacher gives instruction, greater specialization thereby being made possible. Since in small schools, such as those under consideration, teaching occupies much of the time of the principal, one measure of the extent to which this advantage is being realized is the amount of his instructional work. Only one Kentucky principal does no teaching, and he presides over a nine-teacher four-year school of 148 pupils serving an entire county. In Table II are found the percentages of each group of principals who are teaching courses in one or more subject fields. Principals in six-year schools and in four-year schools teach an average of 1.81 and 1.84 subject fields, respectively. Comparisons of fifty schools in Indiana of each type showed six-year principals to be teaching an average of 1.83 fields and four-year principals an average of 2.12 fields, while the teachers in schools of both types were likewise not specialized to a great extent.¹ Obviously, greater specialization in instruction, especially in the smaller schools, does not automatically result from the adoption of a six-year organization, although it may be more easily procured in such an organization through intelligent administrative effort. Even in schools with favorable enrolments and salary schedules, the solution of this difficulty requires conscious effort.²

¹ J. R. Shannon, *op. cit.*, p. 750.

² Frank P. Whitney, "The Six-Year High School in Cleveland," *School Review*, XXXVII (April, 1929), 269.

Another improvement which is said to result from a junior-senior organization is that the lighter teaching schedule of the principal makes it possible for him to function more effectively as a supervisor and as an administrator. For example, the part organization may play in bringing about this result in the small unit was recently given commendation by the principal of such a school.¹ Yet the present study produces little evidence of distinguishing differences. Principals of six-year schools teach a median of 5.2 periods and supervise

TABLE II
PERCENTAGE DISTRIBUTION OF PRINCIPALS IN 119 SIX-YEAR
HIGH SCHOOLS AND IN 195 FOUR-YEAR HIGH SCHOOLS
ACCORDING TO AMOUNT OF TEACHING DONE

Number of Subject Fields Taught	Principals in Six-Year High Schools	Principals in Four-Year High Schools
1.....	33.6	31.3
2.....	53.8	52.8
3.....	10.9	15.9
4.....	1.7	0.0
Total.....	100.0	100.0

study halls 1.6 periods daily, while four-year principals teach a median of 4.7 periods and supervise study halls 1.7 periods daily. The number of student-hours taught weekly by the former is 420 and by the latter 419. A knowledge of the number of recitation periods and their length will aid the reader in interpreting these figures. The daily schedule comprises seven recitation periods in 62 per cent of the six-year schools studied and in 67 per cent of the four-year schools, while 35 per cent of the former use eight periods as against 30 per cent of the latter. Approximately 3 per cent of each group use six periods. Periods are forty-five minutes in length in 94 per cent of the former schools and in 91 per cent of the latter group, while 4 per cent of each group have forty-minute periods. The complete distributions of their time during the school day given by 205 principals show that in the six-year schools a median of one period a

¹ John H. Napier, Jr., "The Six-Year High School—A Neglected Opportunity in Secondary Education," *California Quarterly of Secondary Education*, VI (January, 1931), 172.

week is spent in supervision, while in the four-year schools the median is zero. The median number of periods a week spent in administrative work is zero for both types of principals.

CONCLUSION

From the material of this study it is evident that in these small six-year and four-year schools in Kentucky the differences are unimportant as compared with the resemblances. In fact, the distinctive character of the six-year school is generally lacking; these schools, being unable to do otherwise, function largely as do four-year schools under a different organizational name. Even a change in the housing of the seventh and eighth grades is not the rule, except in city districts, as all grades from the first through the twelfth are usually in the same building before reorganization takes place. It would seem that the first step in the improvement of the education provided in high schools such as these would be not reorganization along junior-senior lines but an effort to secure larger units with more adequate income—through consolidation, for example. After this result is accomplished, consideration of reorganization on a six-year basis would be justifiable because conditions would then exist which would enable a reorganized high school to function as it should.

THE UTILIZATION OF BLACKBOARDS BY HIGH-SCHOOL TEACHERS

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The problem under consideration in the investigation reported in this article was the utilization of blackboards by teachers in secondary schools. The purpose of the study was to ascertain (1) the amount of blackboard space actually utilized by the teachers in instructing the pupils and (2) the amount of blackboard space utilized by the pupils in their classroom work.

This study was limited to an analysis of the utilization of the blackboard space in the five high schools in Laramie, Casper, Sheridan, and Cheyenne, Wyoming. The sources of the data used in this investigation were records kept for ten days during the first two weeks of May, 1931, by the teachers in the secondary schools of the four cities. Entries were made showing the amount of blackboard space utilized in the classroom during each recitation period.

The following items were included in the records: (1) the number of linear feet of blackboard space installed in each classroom, (2) the number of linear feet of blackboard space utilized by the teacher, (3) the width of the blackboard space utilized by the teacher, (4) the number of recitation periods reported by each teacher, (5) the number of recitation periods in which blackboard space was actually utilized by each teacher, (6) the number of recitation periods in which blackboard space was actually utilized by the pupils, (7) the number of pupils using blackboard space during any one period, and (8) the number of minutes that pupils spent at the blackboard during any one period. These records were submitted by 123 teachers in the four school systems, who represented seven of the subject-matter fields of the secondary schools, as well as music and fine arts.

An analysis of the reports submitted by the teachers shows that a total of 3,854 linear feet, or approximately three-fourths of a mile, of blackboard space is installed in the 123 classrooms for which re-

ports were made. The average number of linear feet in a classroom is 31, while the median is 30. Table I shows the distribution of the rooms according to the number of feet of blackboard space installed.

The maximum number of feet of blackboard space utilized by the teachers at any one time during the period for which the records

TABLE I
NUMBER OF LINEAR FEET OF BLACKBOARD
INSTALLED IN 123 CLASSROOMS IN SEC-
ONDARY SCHOOLS IN WYOMING

Number of Feet of Blackboard	Number of Rooms	Total Length of Blackboard
5.....	1	5
6.....	1	6
10.....	1	10
12.....	3	36
15.....	1	15
18.....	8	144
20.....	11	220
21.....	1	21
22.....	3	66
24.....	5	120
25.....	1	25
26.....	1	26
27.....	5	135
30.....	22	660
32.....	3	96
35.....	1	35
36.....	19	684
37.....	2	74
38.....	3	114
40.....	16	640
42.....	4	168
44.....	3	132
45.....	1	45
46.....	1	46
55.....	5	275
56.....	1	56
Total.....	123	3,854

were kept is shown in Table II. The number of linear feet of blackboard space which was utilized ranges from 0 to 50. The total number of linear feet utilized is 2,066, or approximately two-fifths of a mile. The average number of feet utilized a room is 17, while the median number of feet utilized is 12.

A comparison of the utilization of the number of feet of blackboard space installed in the classrooms of various departments with

the number of feet of blackboard space utilized by the teachers is given in Table III. This table shows that the teachers of science utilized the smallest percentage of the blackboard space provided

TABLE II
MAXIMUM NUMBER OF LINEAR FEET OF BLACK-
BOARD SPACE UTILIZED BY 123 TEACHERS
DURING ANY ONE PERIOD

Number of Feet Utilized	Number of Rooms	Total Length of Blackboard
0.....	2	0
4.....	2	8
5.....	5	25
6.....	14	84
7.....	3	21
8.....	6	48
9.....	2	18
10.....	14	140
12.....	14	168
14.....	1	14
15.....	3	45
16.....	4	64
17.....	1	17
18.....	4	72
20.....	10	200
21.....	2	42
22.....	1	22
24.....	2	48
25.....	6	150
26.....	1	26
27.....	1	27
28.....	1	28
30.....	13	390
32.....	2	64
35.....	1	35
36.....	4	144
37.....	1	37
39.....	1	39
40.....	1	40
50.....	1	50
Total.....	123	2,066

for them, while the teachers of the social studies used the largest percentage of the space provided for them.

The total number of recitation periods reported and the total number of periods in which the blackboards were utilized by the teachers are shown in Table IV. This table shows that the teachers in the various departments utilized the blackboards from 45 per

cent of the time in the commercial department to 81 per cent in the science department.

A comparison of the number of recitation periods reported with the number of periods in which pupils utilized the blackboard space

TABLE III
NUMBER OF LINEAR FEET OF BLACKBOARD SPACE INSTALLED FOR
USE OF VARIOUS DEPARTMENTS AND NUMBER OF LINEAR
FEET UTILIZED BY DEPARTMENT TEACHERS

Department	Number of Feet Installed	Number of Feet Used by Teachers	Percentage of Space Used
Commercial.....	467	185	40
English.....	740	463	63
Foreign-language.....	478	226	47
Industrial-arts.....	258	104	40
Mathematics.....	595	301	51
Science.....	543	165	30
Social-studies.....	633	433	68
Total.....	3,714	1,877	.51

TABLE IV
NUMBER OF RECITATION PERIODS REPORTED AND NUMBER
OF PERIODS IN WHICH TEACHERS IN VARIOUS
DEPARTMENTS USED BLACKBOARD

Department	Number of Recitation Periods	Number of Periods in Which Teachers Used Blackboard	Percentage of Use
Commercial.....	690	309	45
English.....	830	515	62
Foreign-language.....	530	244	46
Industrial-arts.....	530	258	49
Mathematics.....	780	536	69
Science.....	690	557	81
Social-studies.....	830	564	68
Total.....	4,880	2,983	61

is given in Table V. This table shows that the teachers in four departments did not require their pupils to do blackboard work. The teachers of English required their pupils to do blackboard work in 14 per cent of the periods, the teachers of mathematics required their pupils to do blackboard work in 26 per cent of the periods, and the

teachers of foreign languages required their pupils to do blackboard work in 23 per cent of the periods.

The entire width of the blackboard space was used. The teachers of science and of the commercial subjects indicated that they utilized the entire width to a less extent than did the teachers of the other subjects.

The data presented show that the schools have been provided generously with blackboard space. The five schools studied have

TABLE V
NUMBER OF RECITATION PERIODS REPORTED AND NUMBER OF
PERIODS IN WHICH PUPILS UTILIZED BLACKBOARD
IN VARIOUS DEPARTMENTS

Department	Number of Recitation Periods	Number of Periods in Which Pupils Used Blackboard	Percentage of Use
Commercial.	690	0	0
English.	830	119	14
Foreign-language.	530	124	23
Industrial-arts.	530	0	0
Mathematics.	780	213	26
Science.	690	0	0
Social-studies.	830	0	0
Total.	4,880	456	9

3,854 linear feet of blackboard surface in 123 rooms, an average of 31 linear feet to the classroom.

A limited utilization is made of the blackboard surface which has been installed in the classrooms. The maximum number of linear feet utilized by all the teachers during any one period is 2,066, or an average of 17 feet a teacher. The maximum amount of blackboard space utilized at any one time represents 54 per cent of the amount installed.

The teachers did not utilize the blackboard in every class period. The total number of recitation periods reported is 4,880, but the teachers utilized the blackboard in only 2,983, or 61 per cent, of the periods. Sixty-one of the teachers utilized the blackboard in 50 per cent or less of the periods, while sixty-two teachers utilized it in more than 50 per cent of the periods.

The pupils utilized the blackboard to a very limited extent. They utilized the blackboard in 456, or 9 per cent, of the class periods reported. Eighty-six of the teachers required no blackboard work of the pupils. Fourteen of the teachers assigned groups of less than ten to do blackboard work at any one time. The teachers reported that 3,625 pupils were enrolled in their classes, but the maximum number of pupils who utilized the blackboard at any one time was 446, or approximately 12 per cent of the group.

Variations in the utilization of blackboard space among the departments are very noticeable. The average amount of space which was utilized by the teachers ranges from eight linear feet by teachers of industrial arts to twenty-six linear feet by the teachers of mathematics. The English teachers used an average of 24 linear feet; the social-studies teachers, 17 linear feet; the foreign-language teachers, 16 linear feet; the commercial teachers, 10 linear feet; and the science teachers, 9 linear feet. The teachers of the social studies utilized the blackboard in 68 per cent of the periods; the teachers of English, mathematics, and science utilized the blackboard in more than 50 per cent of the periods; the teachers of commercial subjects, the foreign languages, and industrial arts utilized the blackboard in less than 50 per cent of the periods.

The teachers of English, foreign languages, and mathematics required the pupils to do some blackboard work. The other departments did not require their pupils to do blackboard work.

The data indicate that a considerable portion of the blackboard space which has been provided for the classrooms is unnecessary. Forty-six per cent of the space provided was not utilized during the ten days studied. The average number of linear feet of blackboard space per room which was not utilized is eighteen in the social studies, the sciences, and the language departments. The commercial department reported an average of sixteen linear feet of unused blackboard space to a room; the English department, fifteen; the industrial-arts department, twelve; and the mathematics department, eleven.

Educational Writings

REVIEWS AND BOOK NOTES

A helpful treatise for high-school teachers of composition.—One indelible impression remains from a delightful evening with Miss Mirrielees' thought-provoking textbook.¹ The volume comes straight from the classroom—from two classrooms, to be exact—the average high-school class in composition and the college classroom in methods of teaching English. Never does it lose sight of the young, inexperienced teacher and the detailed, practical guidance which he craves. The direct appeal of the second person bespeaks constantly the writer's contact with the cadet in training. The presentation is clear and interesting and includes examples from actual classroom situations. The assignments go straight to the heart of the problem the author wishes to present, and the references, with annotations focused on the question under discussion at the moment, constitute one of the most valuable contributions of the book. Stress is placed on the functional aspects of grammar, sentence variety and correctness, and vigor and effectiveness of vocabulary. The point of view is that of a person convinced that technical grammar, if properly taught, will function in the pupils' speech and writing. Emphasis is given also to the problem of the development of ideas and the planning of the whole composition. Significant is the insistence on what the writer terms "oblique" teaching—the inevitable relationships of grammar, vocabulary, variety, and the effective setting-forth of ideas. Moreover, the author does not stop with generalities; she illustrates concretely the method by which these relationships are to be demonstrated in teaching. The problem of a unified and progressive program in English is likewise brought forcibly to the mind of the young teacher in a clearly defined discussion in chapter iv, entitled "Four Years' Growth: Spelling, Vocabulary-building, Interdepartment Co-operation."

A prominent place is given to the constant application of general principles in the actual writing of high-school pupils. "See that the theory they learn is applied" is a maxim reiterated throughout the volume. In fact, if one were to discover a weakness in so helpful a textbook, it would be the danger that the book might give to teacher or to pupil the notion that practice exists for the sake of demonstrating theory rather than the idea that theory is of value primarily to make practice more effective. It seems unfortunate that the young teacher

¹ Lucia B. Mirrielees, *Teaching Composition in High School*. New York: Harcourt, Brace & Co., 1931. Pp. xii+374. \$2.00.

should be plunged into "weed-pulling," to use the author's own phrase concerning the elimination of errors, before he recognizes what he desires to grow; that his first consideration should be "minimum essentials," and his last, having something to say. It is an unhappy coincidence also that the introduction to the teacher's "attitude toward composition" involves "theme prevision, correction, and evaluation" rather than the larger functions of expression in the development of adolescent youth and his everyday contacts with his fellows. One is in danger of losing the high-school boy or girl and the world in which he lives in the prescription of a program of composition standards to be met. Expression proceeds from the social relations and natural interests of the boys and girls concerned. Out of these comes the necessity for correct and effective communication. The principle would seem to call for particular stress among young teachers accustomed to the academic traditions of their own university days. Oral composition, for instance, does not appear in the Index of *Teaching Composition in High School*. School activities as such are relegated to the Appendix. The major uses of expression set forth in the Clapp report and other studies of life-needs in composition, with the exception of letter-writing, receive no mention in the volume. Though studies such as these are included in the references and are even summarized in part, they do not appear to have direct bearing on what is suggested for teaching.

The style of the book is concrete and challenging, enlivened by a refreshing humor. Especially delightful is the final chapter, "Some Problems Confronting the Prospective Teacher of English," which cannot fail to be significantly helpful to the young person facing for the first time the responsibilities of a teacher in a small town. In fact, one can think of nothing more pleasant and profitable for the English teacher of long years of experience than to spend an evening stacking up his own performance against Miss Mirrieles' intensely human and suggestive proposals concerning how to "affect your class pleasantly" and "what your duty is to yourself."

Whatever the philosophy one holds concerning the function of the teaching of composition in high school, one cannot fail to find this volume both stimulating and helpful.

DORA V. SMITH

UNIVERSITY OF MINNESOTA

The status of buildings and equipment in middle-western junior colleges.—A recent monograph¹ is the report of a survey of about half the public junior colleges in the states of Illinois, Iowa, Kansas, Michigan, Minnesota, and Missouri. Personal visits were made, and with the co-operation of the officials definite data were gathered on the housing conditions actually found as related to enrolment, educational and administrative organization, and curriculum offerings.

¹ Leo Martin Chamberlain, *The Housing of Thirty Public Junior Colleges of the Middle West and Tentative Standards and Principles Relating to Buildings, Equipment, and Associated Administrative Problems*. Bulletin of the Bureau of School Service, Vol. III, No. 4. Lexington, Kentucky: University of Kentucky, 1931. Pp. 210. \$0.50.

Joint housing of more than one-half the colleges with other public-school units was found, only two of the colleges being completely segregated in separate buildings. Enrolment in the Freshman class of the junior college was found to be about 50 per cent of twelfth-grade membership and approximately one-eighth of total high-school enrolment. In the junior college itself second-year enrolment was one-half the first-year enrolment and about one-third the total enrolment of the college.

A statistical analysis of available data indicates that the most reliable single factor that may be employed in predicting the enrolment of a public junior college is either the enrolment of the high school with which the college is associated or the twelfth-grade enrolment of the high school. The latter measure is probably the more satisfactory for predicting the enrolment for the first year when the college includes only a Freshman class [p. 62].

Three administrative factors were found to be related to the housing problems of the junior college when it is placed with the secondary-school unit: the kind of administrative organization maintained, policies in scheduling classes, and the program of studies. The point of view is that these problems should be solved by "a complete co-ordination of the junior college and the upper years of the high school" (p. 87).

It was found that the curriculums of the junior colleges were subordinated to, and made to fit, available buildings and equipment in nearly all cases. Authorities have, as a rule, had a tendency to justify programs in operation rather than to think through what offerings would be desirable if no physical handicap existed. "A reasonable program of studies at an effective junior college might, in the light of present practice, be expected to provide for work in science, literature, and arts; pre-engineering; pre-business; education; pre-medicine; pre-law; and pre-dentistry" (p. 104).

On the whole, the point of view of the survey seems to be that "tentative standards and principles" will be obvious from the data presented. Very likely the naïve attitude is not taken that the *status quo* constitutes desirable practice, but it is not perfectly clear just what criteria are recommended for enrolment, organization, and curriculum in a good plan for the housing of public junior colleges in the middle west.

FREDERICK L. WHITNEY

COLORADO STATE TEACHERS COLLEGE
GREELEY, COLORADO

The improvement of practice teaching in the liberal-arts college.—Since practice teaching is being required by a constantly increasing number of states, colleges face the problem of providing their students with opportunities for teacher training. Supervisors of practice teaching will be interested in a study¹ which

¹ Jacob I. Baugher, *Organization and Administration of Practice-Teaching in Privately Endowed Colleges of Liberal Arts*. Teachers College Contributions to Education, No. 487. New York: Teachers College, Columbia University, 1931. Pp. vi+128. \$1.50.

aims to discover present tendencies of organization and administration of practice teaching in privately endowed colleges of liberal arts for students preparing to teach in the secondary schools. The study presents facts about the facilities of the schools in which the practice teaching is done, the financial arrangements between these schools and the colleges offering practice-teaching courses, the methods used for selecting practice students and for finding the most promising students for training, the activities performed by practice students, the distribution of the students' time, the length of the course, and the relation of the practice teachers to the faculties of the practice schools.

The findings indicate that the supervision and training of students seem to be left largely to the critic teachers. They assist the students with their lesson plans and hold conferences following teaching, in which constructive criticisms are given.

The college supervisor aids in the selection of the students. He visits the students when they teach. He holds group conferences in which he gives directions of importance to all, discusses common problems, presents criticisms based on his own observations, lectures on methods of teaching, and gives demonstration lessons.

The colleges provide library facilities, supplies, and rooms for teacher-training clubs.

The instructors co-operating in the study were asked to state two of the most important problems confronting them in practice teaching and to suggest solutions. The answers were then grouped under such headings as the following: arrangement of the student's program, supervision of the critic teachers, attitude of critic teachers and co-operating schools, lack of facilities, selection of practice teachers, prerequisites of practice teaching, finances, relation of practice teaching to the other departments of the college, measurement of practice teaching, and means of commutation.

Finally, comparisons were made between practice teaching conducted in the liberal-arts colleges and practice teaching in normal schools and teachers' colleges. The findings led the investigator to the conclusion that "practice teaching is very much more a secondary affair in the typical liberal-arts college than in normal schools and teachers' colleges" [p. 85]. Further comparisons are made with the standards of the American Association of Teachers Colleges and with some standards of associations of colleges.

The study ends with a list of recommendations relating to facilities, contracts, finances, selecting practice teachers, organization of courses, and supervision.

Supervisors and critic teachers searching for ways of improving their work with practice teachers will find much in the study that is helpful and valuable. The findings of the investigation show convincingly that the purpose of practice teaching will not be realized unless teacher training is put on a scientific basis.

E. R. BRESLICH

A compact treatment of home economics for non-specialists.—The importance of the small volume under review¹ is in inverse proportion to its size. In the 152 pages of the book the author, aware of confusion existing in the minds of the layman, the school administrator, teachers, and student advisers, discusses simply and ably the scope and philosophy of home economics and its place in American education.

Chapter headings are indicative of problems which concern teachers and school administrators. To them, to home-economics students, to supervisors, and to persons concerned with the training of teachers, this book will be most welcome.

In chapter i, entitled "Introduction," the author defines home economics and gives a brief discussion of changing conceptions in the philosophy and scope of home economics, its aims and purposes both for general and vocational education. Chapter ii considers the relation of home economics to the general school program, the health program, the nursery school, the school lunchroom, social activities, and community activities. Chapter iii is particularly helpful, calling attention to specific factors involved in the organization of home-economics curriculums and units of work.

Only through participation in the problems of school administration and committee work concerned with educational procedure can the teacher of home economics function effectively in building an adequate program in her own subject in relationship to the school curriculum as a whole. . . .

Hers is a subject which should contribute to the enrichment of other subjects. Home economics in turn draws from the wealth of other fields. Therefore it seems wise that in the organization of school curriculums some plan of interpretation of thinking should be provided whereby intelligent, conscious interrelation of content among the various subjects may take place and counteract the tendency to duplication of effort and time in the school program [pp. 26-27].

These and other equally significant statements cannot fail to impress school administrators and teachers with the importance of participation in, and understanding of, the entire school program on the part of each member of the staff. Chapter iii also includes discussion of home-life materials for the elementary-school grades, the scope and function of home economics in the junior and senior high schools and in the continuation and evening schools, and home economics for over-age girls and special classes.

The outlines of courses in use in various school systems, though brief, give evidence (as do the questionnaires and uses made of the findings, as discussed in chapter vii) that home-economics curriculums are based on the present and immediate future needs and interests of the learners. Three chapters are devoted to consideration of home-economics centers—the location, equipment

¹ Cora Marguerite Winchell, *Home Economics for Public School Administrators*. New York: Teachers College, Columbia University, 1931. Pp. x+152.

with costs, cost of maintenance, size of classes, time allotment, and the home-economics staff and their qualifications and responsibilities.

In conclusion a list of books, pamphlets, and periodicals directs the reader to literature dealing with various phases of home-economics education. This book is a distinct contribution to the cause of home economics.

CORA E. BINZEL

CORNELL UNIVERSITY

Three new French readers.—For years teachers of French have yearned for a basis of selecting textbooks which would be more satisfactory than the ordinary division into “elementary,” “intermediate,” and “advanced” readers upon the subjective opinion of editors and writers. The appearance of the word lists and idiom counts sponsored by the Modern Foreign Language Study, each based on tabulations of more than a million running words in a wide variety of prose and poetry, furnishes the raw material which enables writers to construct textbooks on a reasonably scientific basis and enables a teacher to estimate more satisfactorily the place a given book should occupy in a reading sequence of increasing difficulty. The University of Chicago Press has taken the lead in the publication of books constructed on such scientific criteria. The three volumes under discussion,¹ therefore, represent more than simply three new French readers; they are component parts of a definite milestone in the advancement of the teaching of French.

The Chicago French Series, to which the first of these books is the latest addition, represents a distinct effort to translate into classroom procedure the rather general recommendations made by the Modern Foreign Language Study. The emphasis is emphatically on the reading approach; hence the construction of the books differs from that ordinarily found. *L'Abbé Constantin*, an adaptation of a deservedly popular French classic, is intended to be started at the completion of the fifteenth lesson in *Beginning French: Training for Reading*, the grammar of the series, and is keyed to the grammar in its use of vocabulary and grammatical constructions. The basic vocabulary consists of 570 different French words and about 50 idioms, excluding proper nouns and certain other categories which should be easily understood by the pupil or whose meaning is given in the text. For the sake of simplicity, tense usage is confined almost exclusively to the present and present perfect. The authors have been able to avoid the usual dilemma of supplying insipid content with easy foreign words or producing interesting content with too many and too difficult words. Some pur-

¹ a) Ludovic Halévy, *L'Abbé Constantin*. Adapted and edited by Allis Newell Polard, Grace Cochran, and Helen M. Eddy. Chicago: University of Chicago Press, 1931. Pp. xii+134. \$1.10.

b) Alexandre Dumas, *Impressions de voyage*. Edited by Harry V. E. Palmblad. Chicago: University of Chicago Press, 1931. Pp. xii+198. \$1.50.

c) Theodore Stanley, *Croquis d'un flaneur*. Chicago: University of Chicago Press, 1931. Pp. xii+210. \$1.50.

ists may object to the change of a single word of a French classic lest the flavor of the original be lost; the majority of us welcome interesting stories told in a vocabulary which does not impose too great a burden on beginners.

An analysis of the vocabulary content of the books may illustrate more clearly their place in an articulated French course. The accompanying table shows the percentage of different words contained in each book on the basis of their relative rank in the Vander Beke *French Word Book*, which is so arranged as to show the value of French words on the basis of range and frequency of occurrence. Words ranking from 1-999 constitute the thousand most common words

PERCENTAGE DISTRIBUTION OF DIFFERENT WORDS CONTAINED IN
THREE FRENCH READERS ACCORDING TO THEIR RANK
IN THE VANDER BEKE "FRENCH WORD BOOK"

Rank in Word Book	<i>L'Abbé Constantin</i>	<i>Impressions de voyage</i>	<i>Croquis d'un flaneur</i>
1-999.....	72	30*	30†
1,000-1,999.....	17	15	12†
2,000-2,999.....	5	12	10
3,000-3,999.....	2	9	8
4,000-4,999.....	1	7	7
5,000-5,999.....	2	5	6
6,000 and over.....	1	22	27

* Partially estimated since words 1-500 are omitted from the vocabulary.

† Partially estimated since words 1-1,200 are omitted from the vocabulary.

in the language, and so on down. The list furnishes us with a convenient yardstick whereby we can measure the value of words in reading. Each word that is given in the vocabulary of the books is included in this table, as well as those the meaning of which is given in the text. Since these books omit common words, the table is not mathematically accurate, but, since the omitted common words fall rather uniformly in each thousand, it is relatively so. The estimates in the case of two of the books are on the basis of studies of the vocabularies of a number of French readers of comparable difficulty. This table shows that in *L'Abbé Constantin* 89 per cent of the vocabulary is included among the most common 2,000 words, 8 per cent in the middle range, and only 3 per cent among the less common words ranking 5,000 or more. The percentages in the case of the others are, respectively, 45, 28, and 27, and 42, 25, and 33. Other things being equal, then, we would expect the books to be best adapted for use in early first-year, late second-year, and third-year classes in the high school and in the order cited in college classes.

Vocabulary difficulty is an important basis, though not the only basis, for judging books. Since the idioms in a book are seldom listed in a form convenient for tabulation, no attempt was made to compare idiom content with the Cheyd-leur *French Idiom List*. The book edited by Pollard, Cochran, and Eddy uses the "principle of density" in introducing new words at more or less regular intervals; the others, since they are advanced textbooks, do not.

Palmblad's edition of *Impressions de voyage* and Stanley's *Croquis d'un flâneur*, in the Junior College French Series, represent successful attempts to present material outside that generally found. Each is a collection of sketches resembling the familiar essay. The former, mainly from *En Suisse*, shows Dumas père not as a romancer but as a keen observer of life about him. The half-narrative, half-descriptive form in which the selections are cast make them especially suitable for the ordinary college student or even for more mature and literary secondary-school pupils. In the hands of a skilful teacher well versed in her subject, the book provides an opportunity to emphasize many aspects of French life. This is not so true of Stanley's book, since the scenes of many of his sketches lie outside France. There is a compensation, however, in the intimate tone of his writing and in his cleverness in making one see something interesting in what to most of us would appear trivial and unworthy of attention. By the use of this book students may become acquainted with interesting non-fictional prose of a type which delights the intelligent Frenchman.

An intensive study of each of the three books yields little to be criticized and much to be commended. The mechanical makeup is attractive, the illustrations well chosen and artistic, the aids for the teacher helpful, typographical errors nonexistent. The books are equally well adapted to courses of the traditional or new type.

ROBERT D. COLE

UNIVERSITY OF NORTH DAKOTA

American history for junior high school grades.—Anyone familiar with the late E. D. Adams' *The Power of Ideals in American History* would expect a textbook of which he was co-author to be marked by a similar reaction against the interpretation of history in terms of geography and economic interest. In a junior high school textbook of which he was co-author with Professor John C. Almack,¹ this expectation is fulfilled. Here we have a political history of the United States in which the ideals held by people are made the prime basis for historical interpretation.

Chronologically the book is roughly proportioned as follows: 32 per cent to the period before 1783, 40 per cent to the period 1783-65, and 28 per cent to the period since 1865. Not over 22 per cent of the book deals with economic development and social life. The remainder is what is usually classified as political history, not emphasizing purely military affairs, but stressing the international and domestic quarrels which led to wars. The justification for the small space given to economic and social history is found in a statement given in the Preface to the effect that there is proof that the deeper intricacies of modern industrial life cannot be grasped fully by pupils in the grades—a statement which remains true if the word "political" is substituted for "industrial."

¹ Ephraim Douglass Adams and John C. Almack, *A History of the United States*. New York: Harper & Bros., 1931. Pp. xvi+802. \$1.80.

The narrative is well organized and, on the whole, appears interesting. The pedagogical aids—illustrations, activities, readings, reports, overviews, and questions—are of a high quality for the age level intended. The vocabulary has been graded, and the Index is unusually fine for study uses. Biographical sketches, emphasis on the character of political leaders, generalizations evaluating policies, and summaries of ideas and ideals that mark a movement or a period are important characteristics. The biographical sketches are principally of presidents and other political leaders. A few explorers and pioneers, such as Columbus and Boone, and one inventor, Edison, are the exceptions. A successful attempt has been made to keep the specific facts of history in line with research, but many of the generalizations and evaluations are, as one would expect, debatable. Given the method used, no other result is possible.

The general evaluation of the book depends on one's concept of the objectives of history in the school. To teach history to children in such a way that they will believe that ideals are almost the only differences behind political controversies certainly will not make them intelligent voters, whatever it does to their morals. Evaluations in terms of "good," "patriotic," and "bad" and the personification of the national state may be necessary in some degree for junior high school pupils; they are carried to unusual lengths here. The closer the narrative approaches the present, the less justifiable the method seems. The repeated eulogistic references to President Hoover, for example, will surely work against any realistic thinking about contemporary politics. A teacher with such an objective starts out to indoctrinate pupils with a set of attitudes toward political history and ends up by determining how the pupils should vote. Even though his indoctrination is moderate and liberal in its outlook, he has not increased the pupils' understanding of citizenship affairs.

ELMER ELLIS

UNIVERSITY OF MISSOURI

A textbook in physics stressing principles.—The claim is sometimes made that present-day textbooks in science place too much stress on the more immediately practical facts of science and their applications. This practice, it is said, results in little systematic learning of the fundamental principles or laws of the science and little ability to think in terms of interrelated scientific phenomena. A textbook has recently appeared in the field of high-school physics which seeks to avoid this tendency.¹ The authors maintain that these results have been accomplished by first teaching the principles and then passing on to their applications.

In order that pupils may secure a clear understanding of principles, the terms used are first clearly defined, and then the statement of principle is taught to the point of complete understanding. Applications are then presented, and at the end of each chapter many problems, some simple and some difficult, serve

¹ Charles H. Lake and George P. Unseld, *A Brief Course in Physics*. Boston: D. C. Heath & Co., 1931. Pp. vi+468. \$1.68.

to train the pupil in thinking in terms of that which he has learned and to further fix the principles or laws studied.

The book follows a rather traditional arrangement of subject matter. It begins with chapters dealing with matter and measurements and with the measurement of energy and continues with chapters concerning laws and experiments, forces, simple machines and efficiency, heat, electricity and magnetism, sound, and radiation.

The treatment of many topics appears brief and encyclopedic, especially when it is considered that no references are made to other sources of information. No attempt is made to stimulate interest in outside reading in scientific books and magazines. Since the majority of secondary-school teachers will not do much to stimulate such reading unless the textbook presents suggested topics and accompanying reading lists, this lack appears to be a rather serious defect.

The book contains many pictures and diagrams, some of which, however, are too small to be effective. Its formal approach to the subject indicates that the book will be most serviceable with pupils who are of somewhat better than average intelligence and who are going on to college. Rated on one of the commonly used score cards for judging high-school textbooks, the volume under discussion ranks as the median of three recent publications.

R. J. BRADLEY

PARSONS COLLEGE, FAIRFIELD, IOWA

A textbook in ancient history.—In the Preface of his new high-school textbook in ancient history,¹ Professor Webster explains that he follows the recommendations of the Committee of Seven (1899) and the Committee of Five (1911) and that the book meets the ancient-history requirements of the College Entrance Examination Board. The textbook consists in a thorough revision of the author's *Ancient History* of 1913, with an added chapter on *Magna Graecia* and changed emphasis on late Roman and early medieval times. The book is shorter by about sixty pages than its predecessor and is printed in larger type with attractive format. One deplores the loss of the illuminating footnotes which added color and detail to *Ancient History*, but in the body of the text little of value has been sacrificed in the more compact story now presented. The style has all the smoothness and clarity which have made this author's textbooks acceptable to a multitude of teachers and pupils in American secondary schools.

A comparison of content with that of the former book shows a shifting of emphasis. In *Ancient History* there were four chapters on Asia and Egypt, five on Greece, seven on Rome, and three on the transition to post-Carolingian Europe. *Ancient Civilization* gives three chapters to the Near East, seven to Greece, eight to Rome, and two to the period ending in 814. The story is not so sharply divided into topics and periods; there is more unity and clearer relation-

¹ Hutton Webster, *Ancient Civilization*. Boston: D. C. Heath & Co., 1931. Pp. xxx+604. \$2.12.

ship. Certain topics—notably that of classical art, which formerly had separate treatment—are now presented with other aspects of culture in historical order.

This book is a usable, well-written, well-illustrated textbook of the conventional type, measuring generously to the exactions of the authorities cited in its Preface. One looks in vain, however, for any approximation to that changed overview of the ancient world which the tremendous discoveries of the last twenty years have given to scholars. Is there any valid reason why high-school pupils should not be kept within shouting distance of the knowledge now brought not only to experts in their technical journals but to the public in popular magazines and in works as standard as the *Cambridge Ancient History*? It is now a good century and a half since the world of the East began to influence Western ideas. Greece, once "that point of light in history," is only one of many torches now. Rome's red glow no longer hides the rays from North Africa and the Near East. Asoka, thanks to the advertising of a popular publicist, is known to the newspapers, if not to the textbooks. Certainly all that wealth of Asiatic culture which burgeoned from time to time outside the charmed circle of classical tradition cannot be omitted from a just survey of the forces that have made our modern civilization. The map of the ancient world is far larger now than it was at the turn of the century.

If the function of textbook-writers is to interpret the treasures of scholarship to the laymen of the nation in their learning years, should not that interpretation be reasonably up to date and mirror the content and values held by informed scholars in each subject? It is true that the new knowledge is as yet ill digested and that no settled pattern has so far evolved from the mass of fresh facts. It is true that the makers of the college entrance examinations are usually conservatives. Nevertheless, what is the textbook-writer's obligation to his readers?

HUNTER COLLEGE, NEW YORK

FRANCES MOREHOUSE

CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

- ADAMS, JESSE E., and TAYLOR, WILLIAM S. *An Introduction to Education and the Teaching Process*. New York: Macmillan Co., 1932. Pp. x+668. \$2.50.
- Annotated List of Graduate Theses and Dissertations, The Department of Education, The University of Chicago, 1900-1931*. Chicago: Department of Education, University of Chicago, 1932. Pp. iv+120. \$0.50.
- ARRINGTON, RUTH E. *Interrelations in the Behavior of Young Children*. Child Development Monographs, No. 8. New York: Teachers College, Columbia University, 1932. Pp. xviii+156.

- Character Education*. Tenth Yearbook of the Department of Superintendence. Washington: Department of Superintendence of the National Education Association, 1932. Pp. 536. \$2.00.
- CONNOR, RUTH. *The Scholastic Behavior of a Selected Group of Undergraduate Home Economics Students*. Teachers College Contributions to Education, No. 497. New York: Teachers College, Columbia University, 1931. Pp. x+72. \$1.50.
- GRILL, GEORGE W. *The Minutes of a Board of Education: A Handbook for Public-School Executives*. Milwaukee, Wisconsin: Bruce Publishing Co., 1932. Pp. xiv+216. \$3.00.
- HAGER, WALTER E. *The Quest for Vocational Adjustment in the Profession of Education*. Teachers College Contributions to Education, No. 491. New York: Teachers College, Columbia University, 1932. Pp. x+86. \$1.50.
- HISSONG, CLYDE. *The Activity Movement*. Educational Psychology Monographs, No. 30. Baltimore: Warwick & York, Inc., 1932. Pp. x+122. \$2.10.
- HORNE, HERMAN HARRELL. *The Democratic Philosophy of Education: Companion to Dewey's "Democracy and Education," Exposition and Comment*. New York: Macmillan Co., 1932. Pp. xxiv+548. \$2.50.
- KASIR, DAOUD S. *The Algebra of Omar Khayyam*. Teachers College Contributions to Education, No. 385. New York: Teachers College, Columbia University, 1931. Pp. iv+126. \$2.00.
- KNUDSEN, CHARLES W. *Evaluation and Improvement of Teaching* (In Secondary Schools). Garden City, New York: Doubleday, Doran & Co., Inc., 1932. Pp. x+538. \$2.50.
- LANGFORD, HOWARD D. *Educational Service: Its Functions and Possibilities*. Teachers College Contributions to Education, No. 509. New York: Teachers College, Columbia University, 1931. Pp. vi+212. \$2.00.
- LONG, JOHN A. *Motor Abilities of Deaf Children*. Teachers College Contributions to Education, No. 514. New York: Teachers College, Columbia University, 1932. Pp. viii+68. \$1.50.
- MORT, PAUL R., and GATES, ARTHUR I. *The Acceptable Uses of Achievement Tests: A Manual for Test Users*. New York: Teachers College, Columbia University, 1932. Pp. iv+86.
- OVERN, ALFRED VICTOR. *Indices of Supply and Demand of Teachers in Minnesota*. Minneapolis, Minnesota: University of Minnesota Press, 1932. Pp. xxvi+254. \$2.50.
- PANGBURN, JESSIE M. *The Evolution of the American Teachers College*. Teachers College Contributions to Education, No. 500. New York: Teachers College, Columbia University, 1932. Pp. vi+140. \$1.50.
- REEVES, CHARLES EVERAND. *Standards for High School Teaching: Methods and Technique*. New York: D. Appleton & Co., 1932. Pp. xii+558. \$2.50.
- REEVES, CHARLES EVERAND. *Workbook in High School Observation and Practice Teaching To Be Accompanied by "Standards for High School Teaching."* New York: D. Appleton & Co., 1932. Pp. viii+270.

- The Teaching of Algebra.* Seventh Yearbook of the National Council of Teachers of Mathematics. New York: Teachers College, Columbia University, 1932. Pp. x+180.
- Vocational Guidance.* Report of the Subcommittee on Vocational Guidance, M. Edith Campbell, Chairman. Section III, Education and Training, White House Conference on Child Health and Protection. New York: Century Co., 1932. Pp. xxiv+396. \$3.00.
- YOUNG, ELIZABETH BARBER. *A Study of the Curricula of Seven Selected Women's Colleges of the Southern States.* Teachers College Contributions to Education, No. 511. New York: Teachers College, Columbia University, 1932. Pp. x+220. \$2.00.

BOOKS PRIMARILY FOR HIGH-SCHOOL TEACHERS AND PUPILS

- BOVÉE, ARTHUR GIBBON. *Aventures par la lecture: Contes, comédies, et civilisation française.* New York: Harcourt, Brace & Co., 1932. Pp. xviii+494. \$1.72.
- COLLODI, CARLO. *Aventure di Pinocchio.* With Notes, Exercises, and Vocabulary by Emilio Goggio. Boston: D. C. Heath & Co., 1932. Pp. viii+196. \$1.12.
- COWLEY, ELIZABETH BUCHANAN. *Plane Geometry.* Newark, New Jersey: Silver, Burdett & Co., 1932. Pp. xii+368. \$1.40.
- GENTLES, HARRY W., and BETTS, GEORGE H. *Habits for Safety: A Text-Book for Schools.* Indianapolis, Indiana: Bobbs-Merrill Co., 1932. Pp. 228. \$0.67.
- HAMILTON, C. W., and GALLAGHER, J. F. *First Lessons in Business Training.* New York: Prentice-Hall, Inc., 1932. Pp. xvi+432. \$1.60.
- HARNEY, LAURA B. *The Skycraft Book.* Boston: D. C. Heath & Co., 1932. Pp. vi+338. \$1.08.
- JOHNS, RALPH LESLIE. *Business Letters: Functions, Principles, Composition.* New York: Gregg Publishing Co., 1932. Pp. xii+348. \$1.40.
- JOHNSTON, HAROLD WHETSTONE. *The Private Life of the Romans.* Revised by Mary Johnston. Chicago: Scott, Foresman & Co., 1932 (revised). Pp. 430. \$2.24.
- LANE, R. H. *Simple French.* New York: Longmans, Green & Co., 1932. Pp. vi+60. \$0.56.
- MORENO-LACALLE, JULIAN. *Curso avanzado de composición.* Boston: D. C. Heath & Co., 1932. Pp. viii+164. \$1.12.
- O'NEIL, JEROLD. *To-day's Boy and To-day's Problems.* New York: Sears Publishing Co., Inc., 1932. Pp. 258. \$2.50.
- STÖKL, HELENE. *Unter dem Christbaum.* Edited with Notes, Exercises, and Vocabulary by Elmer O. Wooley. Boston: D. C. Heath & Co., 1932. Pp. x+258. \$0.96.
- THOMA, LUDWIG. *Lausbubengeschichten aus meiner Jugendzeit.* Edited with Notes, Exercises, and Vocabulary by A. H. Dahlstrom. Boston: D. C. Heath & Co., 1932. Pp. xii+198. \$1.12.

- TURKINGTON, GRACE A. *My Country: A Textbook in Civics and Patriotism for Young Americans*. Boston: Ginn & Co., 1932 (second revised edition). Pp. vi+450. \$1.08.
- WOODS, WALTER O. *The Story of Uncle Sam's Money*. New York: Gregg Publishing Co., 1932. Pp. xiv+178. \$1.50.

PUBLICATIONS OF THE UNITED STATES OFFICE OF EDUCATION
AND OTHER MATERIAL IN PAMPHLET FORM

- Administrative Practices Affecting Classroom Teachers*. Part II, The Retention, Promotion, and Improvement of Teachers. Research Bulletin of the National Education Association, Vol. X, No. 2. Washington: Research Division of the National Education Association, 1932. Pp. 33-76.
- Annual Report of the General Education Board, 1930-1931*. New York: General Education Board (61 Broadway), 1932. Pp. xii+62.
- A Buying Guide for Elementary School Libraries: With an Appended List of Books for Nursery School and Kindergarten Children*. Ann Arbor, Michigan: University of Michigan Press, 1932. Pp. viii+94.
- GLENN, EARL R., and GRUENBERG, BENJAMIN C. *Instructional Tests in General Science*. Yonkers-on-Hudson, New York: World Book Co., 1932. Pp. 92.
- Practical Economics in School Administration: Including Suggestions for Improving Efficiency in the Maintenance, Operation and Management of the School Plant*. Educational Monographs, No. 3. University of Nebraska Publication No. 94. Lincoln, Nebraska: University of Nebraska, 1932. Pp. 212.
- Recent issues of the Office of Education:
- Bulletin No. 20, 1931—*Biennial Survey of Education in the United States, 1928-1930*: Vol. II, Chap. V, Statistics of Teachers Colleges and Normal Schools, 1929-1930, by Emery M. Foster.
- Bulletin No. 20, 1931—*Biennial Survey of Education in the United States, 1928-1930*: Vol. II, Chap. VII, Statistics of Private High Schools and Academies, 1929-30, by Emery M. Foster.
- Pamphlet No. 26, 1931—*Recent Theses in Education: An Annotated List of 242 Theses Deposited with the Office of Education and Available for Loan*.
- SOPER, WAYNE W. *The Use of the Elementary School Auditorium in Cities and Villages under Superintendents*. University of the State of New York Bulletin, No. 990. Albany, New York: University of the State of New York, 1932. Pp. 64.

MISCELLANEOUS PUBLICATIONS

- WILLIAMS, JESSE FEIRING, and NIXON, EUGENE WHITE. *The Athlete in the Making*. Philadelphia: W. B. Saunders Co., 1932. Pp. 258. \$2.50.

